

```

1 GTCTCGTGTA TGGCGTGGTT AAGGTTGCAG CCTCTCACCT CTGCGTTTCCT
51 CCATTTTGGG CTGGTTACCT TTGTGCTCTT CCTGAATGGT CTTTCGAGCAG
101 AGGCTGGTGG CTCAGGGGAC GTGCCAAGCA CAGGGCAGAA CAATGAGTCC
151 TGTTCAGGGT CATCGGACTG CAAGGAGGGT GTCATCCTGC CAATCTGGTA
201 CCCGGAGAAC CCTTCCCTTG GGGACAAGAT TGCCAGGGTC ATTGTCTATT
251 TTGTGGCCCT GATATACATG TTCTTGGGG TGCCATCAT TGCTGACCGC
301 TTCATGGCAT CTATTGAAGT CATCACCTCT CAAGAGAGGG AGGTGACAAT
351 TAAGAAACCC AATGGAGAAA CCAGCACAAC CACTATTCGG GTCTGGAATG
401 AAACGTCTC CAACCTGACC CTTATGGCCC TGGGTTCCCTC TGCTCCTGAG
451 ATACTCCTCT CTTTAATTGA GGTGTGTGGT CATGGGTTC TGTCTGGTGA
501 TCTGGGACCT TCTACCATTG TAGGGAGTGC AGCCTTCAAC ATGTTTCATCA
551 TCATTGGCAT CTGTGTCTAC GTGATCCAG ACGGAGAGAC TCGCAAGATC
601 AAGCATCTAC GAGTCTTCTT CATCACCGCT GCTTGGAGTA TCTTTGCCTA
651 CATCTGGCT TATATGATTG TGGCAGTCTT CTCCCTGGT GTGGTCCAGG
701 TTTGGGAAGG CCTCCTCACT CTCTTCTCTT TTCCAGTGTG TGTCTTCTG
751 GCCTGGGTGG CAGATAAAG ACTGCTCTT TACAAATACA TGCACAAAAA
801 GTACCGCACA GACAAACACC GAGGAATTAT CATAGAGACA GAGGGTGACC
851 ACCCTAAGGG CATGAGATG GATGGGAAAA TGATGAATT CCATTTTCTA
901 GATGGGAACC TGGTGCCCTT GGAAGGGAAG GAAAGTGGATG AGTCCCGCAG
951 AGAGATGATC CGGATCCTCA AGGATCTGAA GCAAAAACAC CCAGAGAAGG
1001 ACTTAGATCA GCTGGTGGAG ATGGCCAATT ACTATGCTCT TCCCCACCAA
1051 CAGAAGAGCC GCGCCTTCTA CCGTATCCAA GCCACTCGTA TGATGACTGG
1101 TGCAGGCAAT ATCCTGAAGA AACATGCAGC AGAACAAGCC AAGAAGGCCT
1151 CCAGCATGAG CGAGGTGCAC ACCGATGAGC CTGAGGACTT TATTTCGAAG
1201 GTCTTCTTTG ACCCATGTTT TTACCAATGC CTGGAGAACT GTGGGGCTGT
1251 ACTCTGACA GTGGTGAGGA AAGGGGAGA CATGTCAAAG ACCATGTATG
1301 TGGACTACAA AACAGAGGAT GGTCTGCCA ATGCAGGGGC TGACTATGAG
1351 TTCACAGAGG GCACGGTGGT TCTGAAGCCA GGAGAGACCC AGAAGGAGTT
1401 CTCCGTGGGC ATAATTGATG ACGACATTTT TGAGGAGGAT GAACACTTCT
1451 TTGTAAGGTT GAGCAATGTC CGCATAGAGG AGGAGCAGCC AGAGGAGGGG
1501 ATGCCCTCCG CAATATTCAA CAGTCTTCCC TTGCCTCGGG CTGTCCTAGC
1551 CTCCCCTTGT GTGGCCACAG TTACCATCTT GGATGATGAC CATGCAGGCA
1601 TCTTCACTTT TGAATGTGAT ACTATTCATG TCAATGAGAG TATTGGTGT
1651 ATGGAGGTCA AGGTTCTGCG GACATCAGGT GCCCGGGGTA CAGTCATCGT
1701 CCCCTTTAGG ACAGTAGAAG GGACAGCCAA GGGTGGCGGT GAGGACTTTG
1751 AAGACACATA TGGGGAGTTG GAATTCAAGA ATGATGAAAC TGTGAAAACC
1801 ATAAGGGTTA AAATAGTAGA TGAGGAGGAA TACGAAAGGC AAGAGAATTT
1851 CTTCAATTGCC CTTGGTGAAC CGAAATGGAT GGAACGTGGA ATATCAGATG
1901 TGACAGACAG GAAGCTGACT ATGGAAGAAG AGGAGGCCAA GAGGATAGCA
1951 GAGATGGGAA AGCCAGTATT GGGTGAACAC CCCAACTGG AAGTCATCAT
2001 TGAAGAGTCC TATGAGTTCA AGACTACGGT GGACAACTG ATCAAGAAGA
2051 CAAACCTGGC CTTGGTTGTG GGGACCCATT CCTGGAGGGA CCAGTTCATG
2101 GAGGCCATCA CCCTCAGTGC AGCAGGGGAT GAGGATGAGG ATGAATCCGG
2151 GGAGGAGAGG CTGCCCTCCT GCTTTGACTA CGTCATGCAC TTCCTGACTG
2201 TCTTCTGGAA GGTGCTGTTT GCCTGTGTGC CCCCCACAGA GTACTGCCAC
2251 GGCTGGGCCG GCTTCGCCGT CTCCATCCTC ATCATTGGCA TGCTCACCAG
2301 CATCATTTGG GACCTGGCCT CGCACTTCGG CTGCACCATT GGTCTCAAAG
2351 ATTCGGTCAC AGCTGTTGTT TTCGTGGCAT TTGGCACCTC TGTCCCAGAT
2401 ACGTTTGCCA GCAAAGCTGC TGCCCTCCAG GATGTATATG CAGACGCCTC
2451 CATTTGGCAAG GTGACGGGCA GCAACGCCGT CAATGTCTTC CTGGGCATCG
2501 GCCTGGCCTG GTCCGTGGCC GCCATCTACT GGGCTCTGCA GGGACAGGAG
2551 TTCCACGTGT CGGCCGGCAC ACTGGCCTTC TCCGTCACCC TCTTCACCAT
2601 CTTTGCATTT GTCTGCATCA GCGTGTCTT GTACCGAAGG CGGCCGCACC
2651 TGGGAGGGGA GCTTGGTGGC CCCCCTGGCT GCAAGCTCGC CACAACATGG
2701 CTCTTTGTGA GCCTGTGGCT CCTCTACATA CTCTTTGCCA CACTAGAGGC
2751 CTATTGCTAC ATCAAGGGGT TCTAAGCCAC AC

```

```

5'UTR:      1 - 9
Start Codon: 10
Stop Codon: 2773
3'UTR:      2776

```

HOMOLOGOUS PROTEINS:
Top 10 BLAST Hits:

		Score	E
Sequences producing significant alignments:		(bits)	Value
CRA 18000005047237	/altid=gi 2498054 /def=sp P70549 NAC3_RAT SO...	1828	0.0
CRA 18000005200270	/altid=gi 4140706 /def=gb AAD04173.1 _ (AF107...	1342	0.0
CRA 1000682343796	/altid=gi 6453729 /def=gb AAF08988.1 AF108389...	1338	0.0
CRA 18000004939788	/altid=gi 1083801 /def=pir S43730 Na+/Ca2+-...	1335	0.0
CRA 18000005028314	/altid=gi 1279782 /def=gb AAA97928.1 (U5266...	1334	0.0
CRA 18000004968774	/altid=gi 382752 /def=prf 1901175A Na/Ca ex...	1333	0.0
CRA 18000004882912	/altid=gi 627801 /def=pir B53335 Na+/Ca2+-e...	1331	0.0
CRA 18000005218648	/altid=gi 4566522 /def=gb AAD23386.1 AF10916...	1330	0.0
CRA 18000005218651	/altid=gi 4566528 /def=gb AAD23389.1 AF10916...	1329	0.0
CRA 18000004907324	/altid=gi 479177 /def=pir S32435 Na+/Ca2+-e...	1328	0.0

dbEST:

		Score	E
Sequences producing significant alignments:		(bits)	Value
gi 11600765	/dataset=dbest /taxon=96...	500	e-138
gi 318815	/dataset=dbest /taxon=9606 /...	216	2e-53

EXPRESSION INFORMATION FOR MODULATORY USE:

gi|11600765 Pooled (Brain, Heart, Kidney, Lung, Spleen, Testis, Leukocyte)
gi|318815 Fetal brain

Tissue expression:

Pooled tissues (Brain, Heart, Kidney, Lung, Spleen, Testis, Leukocyte)

```

1 MAWLRLQPLT SAFLHFGLVT FVLFLNGLRA EAGGSGDVPS TGQNNESCSG
51 SSDCKEGVIL PIWYPENPSL GDKIARVIVY FVALIYMFLG VSIIADRFMA
101 SIEVITSQER EVTIKKPNGE TSTTTIRVWN ETVSNLTLMA LGSSAPEILL
151 SLIEVCGHGF IAGDLGPSTI VGSAAFNMTI IIGICVYVIP DGETRRIKHL
201 RVFFITAAWS IFAYIWLYMI LAVFSPGVVQ VWEGLLTLFF FPVCVLLAWV
251 ADKRLLFYKY MHKRYRTDKH RGIIIETEGD HPKGIEMDGK MMNSHFLDGN
301 LVPLEGKEVD ESRREMIRIL KDLKQKHPEK DLDQLVEMAN YYALSHQQKS
351 RAFYRIQATR MMTGAGNILK KHAAEQAKKA SSMSEVHTDE PEDFISKVFF
401 DPCSYQCLN CGAVLLTVVR KGGDMSKTMV VDYKTEDGSA NAGADYEFTE
451 GTVVLLKPGET QKEFSVGIID DDIFEDEEHF FVRLSNVRIE EEQPEEGMPP
501 AIFNSLPLPR AVLASPCVAT VTILDDDHAG IFTFECDTIH VSESIGVMEV
551 KVLRTSGARG TVIVPFRTVE GTAKGGGEDF EDTYGELEFK NDETVKTIRV
601 KIVDEEYER QENFFIALGE PKWMERGISD VTDRKLTMEV EEAKRIAEMG
651 KPVLGEHPKL EVIIEESYEF KTTVDKLIK TNLALVVGTH SWRDQFMEAI
701 TVSAAGDEDE DESGEERLPS CFDYVMHFLT VFWKVLFAV PPTEYCHGWA
751 CFAVSILIIG MLTAIGDLA SHFGCTIGLK DSVTAVVFVA FGTSVPDTFA
801 SKAAALQDVY ADASIGNVTG SNAVNVLGI GLAWSVAAY WALQGQEFHV
851 SAGTLAFSVT LTFIFAFVCI SVLLYRRRPH LGGELGGPRG CKLATTWLFV
901 SLWLLYLIFA TLEAYCYIKG F
(SEQ ID NO:2)

```

FEATURES:

Functional domains and key regions:

[1] PDOC00001 PS00001 ASN_GLYCOSYLATION
N-glycosylation site

Number of matches: 4

1	45-48	NESC
2	130-133	NETV
3	135-138	NLTL
4	817-820	NVTG

[2] PDOC00004 PS00004 CAMP_PHOSPHO_SITE
cAMP- and cGMP-dependent protein kinase phosphorylation site

Number of matches: 2

1	378-381	KKAS
2	634-637	RKLT

[3] PDOC00005 PS00005 PKC_PHOSPHO_SITE
Protein kinase C phosphorylation site

Number of matches: 11

1	113-115	TIK
2	125-127	TIR
3	597-599	TIR
4	194-196	TRK
5	267-269	TDK
6	312-314	SRR
7	460-462	TQK
8	572-574	TAK
9	594-596	TVK
10	125-127	TIR
11	597-599	TIR

[4] PDOC00006 PS00006 CK2_PHOSPHO_SITE
Casein kinase II phosphorylation site

Number of matches: 16

1	69-72	SLGD
2	106-109	TSQE
3	144-147	SAPE
4	151-154	SLIE
5	277-280	TEGD
6	312-315	SRRE
7	382-385	SMSE
8	460-463	TQKE
9	522-525	TILD
10	583-586	TYGE
11	637-640	TMEE
12	672-675	TTVD
13	691-694	SWRD
14	713-716	SGEE
15	720-723	SCFD
16	794-797	SVPD

[5] PDOC00007 PS00007 TYR_PHOSPHO_SITE
Tyrosine kinase phosphorylation site

Number of matches: 2

1	397-405	KVFFDPCSY
2	601-608	KIVDEEEY

[6] PDOC00008 PS00008 MYRISTYL
N-myristoylation site

Number of matches: 15

1	50-55	GSSDCK
2	422-427	GGDSK
3	438-443	GSANAG
4	497-502	GMPPAI
5	557-562	GARGTV
6	571-576	GTAKGG
7	760-765	GMLTAI
8	774-779	GCTIGL
9	778-783	GLKDSV
10	816-821	GNVTGS
11	829-834	GIGLAW
12	831-836	GLAWSV
13	882-887	GGELGG
14	886-891	GGPRGC
15	890-895	GCKLAT

Membrane spanning structure and domains:

Helix	Begin	End	Score	Certainty
1	8	28	1.905	Certain
2	76	96	2.032	Certain
3	133	153	1.009	Certain
4	169	189	1.943	Certain
5	206	226	2.118	Certain
6	231	251	2.072	Certain
7	505	525	0.666	Putative
8	723	743	1.298	Certain
9	747	767	2.258	Certain
10	781	801	1.232	Certain
11	823	843	1.793	Certain
12	854	874	2.424	Certain
13	893	913	2.138	Certain

BLAST Alignment to Top Hit:

>CRA|18000005047237 /altid=gi|2498054 /def=sp|P70549|NAC3_RAT
SODIUM/CALCIUM EXCHANGER 3 PRECURSOR (NA+/CA2+-EXCHANGE
PROTEIN 3) /org=NA+/CA2+-EXCHANGE PROTEIN 3 /dataset=nraa
/length=927
Length = 927

Score = 1828 bits (4682), Expect = 0.0
Identities = 897/927 (96%), Positives = 911/927 (97%), Gaps = 6/927 (0%)
Frame = +1

Query: 10 MAWLRLQPLTSAFLHFLVTFVLFNLGLRAEAGGSDVPSTGQNNESCSGSSDCKEGVIL 189
MAWLRLQPLTSAFLHFLVTFVLFNLGLRAEAG DVPS GQNNESCSGSSDCKEGVIL
Sbjct: 1 MAWLRLQPLTSAFLHFLVTFVLFNLGLRAEAGDLRDVPSAGQNNESCSGSSDCKEGVIL 60

Query: 190 PIWYPENPSLGDKIARVIVYFVALIYMFGLVSIADRFMASIEVITSQEREVTIKKPNGE 369
PIWYPENPSLGDKIARVIVYFVALIYMFGLVSIADRFMASIEVITSQEREVTIKKPNGE
Sbjct: 61 PIWYPENPSLGDKIARVIVYFVALIYMFGLVSIADRFMASIEVITSQEREVTIKKPNGE 120

Query: 370 TSTTTIRVWNETVSNLTLMALGSSAPEILLSLIEVCGHGFAGDLGPSTIVGSAAFNMFI 549
TSTTTIRVWNETVSNLTLMALGSSAPEILLSLIEVCGHGFAGDLGPSTIVGSAAFNMFI
Sbjct: 121 TSTTTIRVWNETVSNLTLMALGSSAPEILLSLIEVCGHGFAGDLGPSTIVGSAAFNMFI 180

Query: 550 IIGICVYVIPDGETRGIKHLRVFFITAAWSIFAYIWLYMILAVFSPGVVQVWEGLLTLFF 729
IIGICVYVIPDGETRGIKHLRVFF+TAAWS+FAYIWLYMILAVFSPGVVQVWEGLLTLFF
Sbjct: 181 IIGICVYVIPDGETRGIKHLRVFFTAAWSVFAYIWLYMILAVFSPGVVQVWEGLLTLFF 240

Query: 730 FPVCVLLAWVADKRLLFYKYMHKYRTDKHRGIIETEGDHPKGIEMDGKMMNSHFLDGN 909
FPVCVLLAWVADKRLLFYKYMHK+YRTDKHRGIIETEG+HPKGIEMDGKMMNSHFLDGN
Sbjct: 241 FPVCVLLAWVADKRLLFYKYMHKRYRTDKHRGIIETEGEHPKGIEMDGKMMNSHFLDGN 300

Query: 910 LVPLEGKEVDESRRMIRILKDLKQKHPEKDLDQLVEMANYALSHQQKSRFYRIQATR 1089
L+PLEGKEVDESRRMIRILKDLKQKHPEKDLDQLVEMANYALSHQQKSRFYRIQATR
Sbjct: 301 LIPLEGKEVDESRRMIRILKDLKQKHPEKDLDQLVEMANYALSHQQKSRFYRIQATR 360

Query: 1090 MMTGAGNILKKHAAEQAKKASSMSEVHTDEPEDFISKVFFDPCSYQCLENCGAVLLTVVR 1269
MMTGAGNILKKHAAEQAKK +SMSEVHTDEPEDF SKVFFDPCSYQCLENCGAVLLTVVR
Sbjct: 361 MMTGAGNILKKHAAEQAKKTASMSEVHTDEPEDFASKVFFDPCSYQCLENCGAVLLTVVR 420

Query: 1270 KGGDSMTMYVDYKTEDGSANAGADYEFTEGTVVLKPGETQKEFSVGIIDDDIFEDEHF 1449
KGGD+SKTMYVDYKTEDGSANAGADYEFTEGTVVLKPGETQKEFSVGIIDDDIFEDEHF
Sbjct: 421 KGGDISKTMYVDYKTEDGSANAGADYEFTEGTVVLKPGETQKEFSVGIIDDDIFEDEHF 480

Query: 1450 FVRLSNVRIEEEQPEEGMPAIFNSLPLPRAVLASPCVATVTILDDDHAGIFTFECDTIH 1629
FVRLSNVR+EEEQ EEGM PAI NSLPLPRAVLASPCVATVTILDDDHAGIFTFECDTIH
Sbjct: 481 FVRLSNVRVEEQLEEGMTPAILNSLPLPRAVLASPCVATVTILDDDHAGIFTFECDTIH 540

Query: 1630 VSESIGVMEVKVLRITSGARGTVIVPRTVEGTAKGGGEDFEDTYGELEFKNDET VKTIRV 1809
VSESIGVMEVKVLRITSGARGTVIVPRTVEGTAKGGGEDFEDTYGELEFKNDET VKTIRV
Sbjct: 541 VSESIGVMEVKVLRITSGARGTVIVPRTVEGTAKGGGEDFEDTYGELEFKNDET VKTIRV 600

Query: 1810 KIVDEEYERQENFFIALGEPKWMERGIS-----DVTDRKLTMEEEEAKRIAEMGKPV 1971
KIVDEEYERQENFFIALGEPKWMERGIS +VTDKLTMEEEEAKRIAEMGKPV
Sbjct: 601 KIVDEEYERQENFFIALGEPKWMERGISALLSPEVTDKLTMEEEEAKRIAEMGKPV 660

Query: 1972 GEHPKLEVIIIESEYFKTTVDKLIKTNLALVVGTHSWRDQFMEAITVSAAGDEDEDESG 2151
GEHPKLEVIIIESEYFK+TVDKLIKTNLALVVGTHSWRDQFMEAITVSAAGDE+EDESG
Sbjct: 661 GEHPKLEVIIIESEYFKSTVDKLIKTNLALVVGTHSWRDQFMEAITVSAAGDEEDESG 720

Query: 2152 EERLPSCFDYVMHFLT VFWKVL FACVPPT EYCHGWACFAVSILIIIGMLTAIIGDLASHFG 2331
EERLPSCFDYVMHFLT VFWKVL FACVPPT EYCHGWACF VSILIIIGMLTAIIGDLASHFG
Sbjct: 721 EERLPSCFDYVMHFLT VFWKVL FACVPPT EYCHGWACFVSILIIIGMLTAIIGDLASHFG 780

Query: 2332 CTIGLKDSVTAVVFAFGTSVPDPTFASKAAALQDVYADASIGNVTGSNAVNVFLGIGLAW 2511
CTIGLKDSVTAVVFAFGTSVPDPTFASKAAALQDVYADASIGNVTGSNAVNVFLGIGLAW
Sbjct: 781 CTIGLKDSVTAVVFAFGTSVPDPTFASKAAALQDVYADASIGNVTGSNAVNVFLGIGLAW 840

Query: 2512 SVAAIYWALQGQEFHVSAGTLAFSVTLFTIFAFVCISVLLYRRRPHLGGELGGPRGCKLA 2691
SVAAIYWA+QGQEFHVSAGTLAFSVTLFTIFAFVC+SVLLYRRRPHLGGELGGPRGCKLA
Sbjct: 841 SVAAIYWAMQGQEFHVSAGTLAFSVTLFTIFAFVCLSVLLYRRRPHLGGELGGPRGCKLA 900

Query: 2692 TTWLFVSLWLLYLFLATLEAYCYIKGF 2772
TTWLFVSLWLLY+LFATLEAYCYIKGF
Sbjct: 901 TTWLFVSLWLLYVLFATLEAYCYIKGF 927 (SEQ ID NO:4)

Hmmer search results (Pfam):

Scores for sequence family classification (score includes all domains):

Model	Description	Score	E-value	N
PF01699	Sodium/calcium exchanger protein	294.6	1.2e-84	2
PF00324	Amino acid permease	2.8	5.9	1
PF01971	Protein of unknown function	2.7	8.7	1

Parsed for domains:

Model	Domain	seq-f	seq-t	hmm-f	hmm-t	score	E-value
PF01699	1/2	118	257 ..	12	152 .]	121.3	1.8e-32
PF01971	1/1	644	670 ..	193	222 ..	2.7	8.7
PF00324	1/1	851	877 ..	472	498 .]	2.8	5.9
PF01699	2/2	757	905 ..	1	152 []	181.4	1.5e-50

1 TTGGATGAGA TCTAAAGCAT TATTAAGAGT GGGGAGTGCA AAGAAGAAAC
51 CCTCATTTTCA AAGATGAATG AGAATAATGG CATGTACAAA GGTCTGGGG
101 TGGACAGTCA CTTGGTATAA TCCAAGAGTG AACCTGAAGG CTATTGTTGT
151 TGAATGTAA TAAGGGAGAG AGTGACGGGA TGAAGGGGGA TGAGTGGGAA
201 GCAGTGAATT CCTGCAAGGC TTTGAAGGTC ATGGGAAAGA ATTTGGTCTT
251 TATATCAAGA GCAAGAGAAG ACTACTAAAG GGCTTCAAAC AGGGGAGCGA
301 TATGCTTAAG TCTGTTTGT TGTFTTTTAA AAAAAAGATT ACGGTGGCTA
351 TATGAGGAAA GTGGAATTGA GAACTAGCGA GAGTTGGAGT GGTGAGCTCC
401 ATTAGGAGGC TACTGAAGTA GATTTCATGAG GTAAGGAGTG ATGGTGGCCT
451 GGGCTGGGAT GATGGTGGTA GAAATGGAGA AAGAGTTGAT AGGATTTAGT
501 GATTGATAA GGGACAGAAG AGAGATGAAG GCTTTCAGAC TAACATCTGC
551 TTTCTAACAT GAGTAACCTG GTGGCTGAAG ATGCTATTTT CTGAGCTGGG
601 AAACAGGAGA AAAAGGAGCA AATATGGGGG ATGAAGACTT TGAGTCTTTA
651 AGGTGCTGTA CAAACACAAA TCAGCATTC TTTATTACTA AGGTATCCC
701 ACACAGTTGT AGCAGAGGGA GAAAGATCGC CCCCCCCCCA CTTTTTTTTT
751 TTTTTTAGCT ATTCCATGGT ATTTTCATTC TCATCCACC CAAATGAGGC
801 AGTGAGTGGT AAGATGAGTA TATAATAGTT TCAATTGCAT TTCATCCCAT
851 TCTTCTGAGC TCAAGCTCAC CTTTTAGTGG TTTGAGGCCA GTAGATGAAG
901 CTGCATATCA CCCCCAAAAT CTGTCTCTA GTTTAACAAA ACTTATTGTA
951 GAGACATTTG CATGTTTTAT TAATAATGAT TTTTACCCT TGTCCTTTC
1001 CATGTTTGGG TTTGAAATTT GAGTGGCTGG CGGATGATCA TCTTCCTGTT
1051 ACTGCCTGCT TAACTGCTC ATAAGCAGGT TTTACTGGAG GGCTCAGAGC
1101 TGCTGTGAAC TTGGTCTTGG GCACAACCTA CATGGCCTCT GTTTGGCTAT
1151 GGGGTGGGTG GCATTCACCA TTTATCAACT CTTTTGATTT CCCAAGCTAT
1201 CTCAGAATTA TAGCTTGCTT CCAGAAGTCT TGCATTCGGG GAGGAAGTTT
1251 CTTTCCAAGG GAGCTCAGTT TTCAAGGTTT ATTGCTCTGT TTAATGGATG
1301 AGATCTAAAG CATTATTAA AGTGGGGAGT GCAAAGAAGA AACACTCATT
1351 TCAAAATCGA TTGAGAATAA TGGCATGTAC AAAGTCCCTG GGGTGGACAG
1401 TCACTTGGTA TAATCCTGGA GTGAACATGA AGGCCAAGGA AATATGTATA
1451 CATTAAACAG AGCAAGGTTT TCAATTTCT GGGGACTAGT CCATGAAAT
1501 TCAATTCAT ATACTCTCTT GCAAACCTAT GTTATCCAAG ATACTCAAGT
1551 ATAATGACAA CAGGGTAAGG AAGTCCGAAC ACCCCAGAAA CAGTATAAAT
1601 GGGCATGAAG ATTCAGGTTA TACATGGCCT ATTTTAAAGT GCTTCTTGAG
1651 AACTCTCACA GGTAAATACCA GTTTGGGAGA CAGGACTTGA AGGCTATTGC
1701 TGCATTTCCTA TCCCCAGTAT TCCCAGCTAT TTCAAGCCAT TTTTCAACGG
1751 AGTCTCCACC AGATGGTTTG GAGGACAGAG CAGCTATTTG TGCCCTCCCAT
1801 TGACATCTAT TTTTCCAAGT GAGAGACTGC CCCATATGTT AGTGCAATAT
1851 GTCATGGAG GTGAAGCATC AGTTGTATTG GTGGGAACCT GCCGTTTGCT
1901 GTCCCTTTT TCCCTCATGCC TTTTCTGCC TCTCTGATCT TTTCTAGGTC
1951 TCTGGCCTAT CAGGAGGACA ACTGGTGCTG CAATAGAAGC CAGTGGCTAA
2001 GTCTCGTGTA TGGCGTGGTT AAGGTTGCAG CCTCTCACCT CTGCCTTCCT
2051 CCATTTTGGG CTGGTTACCT TTGTGCTCTT CCTGAATGGT CTTGAGCAG
2101 AGGCTGGTGG CTCAGGGGAG GTGCCAAGCA CAGGGCAGAA CAATGAGTCC
2151 TGTTCAGGGT CATCGGACTG CAAGGAGGGT GTCATCCTGC CAATCTGGTA
2201 CCCGGAGAAC CCTTCCCTTG GGGACAAGAT TGCCAGGGTC ATTTGCTATT
2251 TTGTGGCCCT GATATACATG TTCCTTGGGG TGTCCATCAT TGCTGACCCG
2301 TTCATGGCAT CTATTGAAGT CATCACCTCT CAAGAGAGGG AGGTGACAAAT
2351 TAAGAAACCC AATGGAGAAA CCAGCACAAAC AACTATTCCG GTCTGGAATG
2401 AAAGTGTCTC CAACCTGACC CTTATGGCCC TGGGTTCCCTC TGCTCCTGAG
2451 ATACTCCTCT CTTTAAATTGA GGTGTGTGGT CATGGGTTCA TTGCTGGTGA
2501 TCTGGGACCT TCTACCATTG TAGGGAGTGC AGCCTTCAAC ATGTTTCATCA
2551 TCATTGGCAT CTGTGTCTAC GTGATCCCAG ACGGAGAGAC TCGCAAGATC
2601 AAGCATCTAC GAGTCTTCTT CATCACCGCT GCTTGGAGTA TCTTTGCCA
2651 CATCTGGCTC TATATGATTG TGGCAGTCTT CTCCCCTGGT GTGGTCCAGG
2701 TTTGGGAAGG CCTCCTCACT CTCTTCTTCT TTCCAGTGTG TGTCCTTCTG
2751 GCCTGGGTGG CAGATAAACG ACTGCTCTTC TACAAATACA TGCACAAAAA
2801 GTACCGCACA GACAAACACC GAGGAATTAT CATAGAGACA GAGGGTGACC
2851 ACCCTAAGGG CATTGAGATG GATGGGAAAA TGATGAATTC CCATTTTCTA
2901 GATGGGAACC TGGTCCCCCT GGAAGGGAAG GAAGTGGATG AGTCCCGCAG
2951 AGAGATGATC CGGATTCTCA AGGATCTGAA GCAAAAACAC CCAGAGAAGG
3001 ACTTAGATCA GCTGTTGGAG ATGGCCAATT ACTATGCTCT TTCCACCAA
3051 CAGAAGAGCC GCGCCTTCTA CCGTATCCAA GCCACTCGTA TGATGACTGG
3101 TGCAGGCAAT ATCCTGAAGA AACATGCAGC AGAACAAGCC AAGAAGGCCT
3151 CCAGCATGAG CGAGGTGCAC ACCGATGAGC CTGAGGACTT TATTTCCAAG
3201 GTCTTCTTTG ACCCATGTTT TTACCAAGTGC CTGGAGAACT GTGGGGCTGT
3251 ACTCCTGACA GTGGTGAGGA AAGGGGGAGA CATGTCAAAG ACCATGTATG
3301 TGGACTACAA AACAGAGGAT GGTCTGCCA ATGCAGGGGC TGACTATGAG
3351 TTCACAGAGG GCACGGTGGT TCTGAAGCCA GGAGAGACCC AGAAGGAGTT
3401 CTCCGTGGGC ATAATTGATG ACGACATTTT TGAGGAGGAT GAACACTTCT
3451 TTGTAAGGTT GAGCAATGTC CGCATAGAGG AGGAGCAGCC AGAGGAGGGG
3501 ATGCCTCCAG CAATATTCAA CAGTCTTCCC TTGCCTCGGG CTGCTCTAGC

FIGURE 3, page 1 of 61

3551 CTCCCCTTGT GTGGCCACAG TTACCATCTT GGATGATGAC CATGCAGGCA
3601 TCTTCACFTT TGAATGTGAT ACTATTCATG TCAGTGAGAG TATTGGTGTT
3651 ATGGAGGTCA AGGTTCTGCG GACATCAGGT GCCCGGGGTA CAGTCATCGT
3701 CCCCTTTAGG ACAGTAGAAG GGACAGCCAA GGGTGGCGGT GAGGACTTTG
3751 AAGACACATA TGGGGAGTTG GAATTCAAGA ATGATGAAAC TGTGTAAGTA
3801 ACCTTCCTGT ATTCTGCCCC TCCCTGACCC CATCTTTTGC CATCTCTTTC
3851 TGTCTTTCTG TACTGCACTT TACAACATTT CCTTGTGTTT GTGTTAATGT
3901 CAAACTTTGG TTCCATCACA GGTATGCAGG ATCAGCAGAC ACCACTGGAC
3951 AGGTTCTGCT TCCAACTCTT TCTTCAGTTT TCTCACTTTA AATTGTTTCT
4001 GGGCAAGGAA TCCTGTGACA AGAGCTAAGG ACACAAAACA TTTTCTTCTC
4051 TGAACACAAA AATGATAGCT GGTGGAGCTG TGGGATGACA GAAGTTTGT
4101 GATATCAGAT TTTGGAGAAT TCTTGTGACT AAGAAGGACT AGAGAACTGC
4151 TTGGGCCTCT TCTTCCTCCC TTCTCATAT GAAGGGTATC TATGAGCTTT
4201 GAAACCAATC CTTTCCATTG TGGGCAGCAA TAGCCCATCA GAACATTCTA
4251 AAGAAAACAA GTGGCATTGG CTTTGTTCCT TGGTACTATA TTGCCAGTCT
4301 CACTGTGTAA CCAGATTCCA GGCACGTCTT CTTTAATTTG GAAATTGCAA
4351 AATTGATAGA AATTTAGCAA TCTTTTAAAT TGACCATAGA CTATTTAATG
4401 GTGTGAGGCT TGCCAGCCT AGTTGAATTG AGTCAGTATG GTTGGATAC
4451 TGGAAAGTAT CTTGGAGAAG CAGAGCTCCC AGGGCAGTGG CTAATTGTCT
4501 TTAGTCACAG GTCTAAGCTC CAAAATCTGG TGAAGCAGTG AAGGAGAAAC
4551 ATCCTAGGAA TTGTGGGAGG AAATATATCT TCTGTGTGGT CCTCTCTTTT
4601 CACAGCTTAG GACTCTCCTG AAGTACCTCT TCTTGGGCTA CTGCCCCATT
4651 GAGCCCTTCA GAAACTGTGG GTATTACACT TCTGTCACTT CTATTACCTT
4701 AAGCCTCTG CCCATTGAAC CCTCTTGCAA ATTGGTTATT CTGCTCTTTT
4751 TCCAGTTTGA TAGCTTTAAA AGGGAAAGCA GAATGACTTT CCTCAGGATT
4801 TGTAAGTTAT GAGAAAGTAG ACTTTCTTGG GTGGCCTAGA AGGTTGGAGA
4851 AGACAAACGG GACACTTCTC TGAATGACTG AACATATCCA CAAATAATAA
4901 GCGTGGCAGG AGATGGTGTG AAGAGTAAAA GGAGCATATA GGAAGTTGTG
4951 TGTGTGGGGT GTCTGTTTCA AGAAGCTGCT AATATACCT TCAGTAAGAA
5001 ATGAAGCCAT ACAACCTCTA GAAGAGGAGG AGGAAGGAAC TCATGGAAAA
5051 TGTGGGAGCC ATAGAAGCTA GGGAGAGGTG TCCTAGGAGT GCTTCTGCCC
5101 AGGTCCAGCC ATGAGACAGA GCTCAAAAAG AGCTGGGCAC TGCTGGTGAC
5151 AGAACTGAGT GACCCGGGGG ATCCTGCATC TGTCTTACT CAATCCCTTC
5201 TTAATAATGT GACTTGGGGC AGGTCATTTA TTGGTTCTGG AACTTAACTT
5251 TCTGATATGC AAACCTGGAA TAACAATACT TTCCCTTGCT GGAGGCAAGG
5301 TCAGTCTCTT TTGCAGTTCC TTCCAGCTCT AAGATTTTCT GAACCATAGA
5351 CATAGCACT CAGTGTAGGT CATATTCGCA CTTGCCAAAA ATGGATCAGG
5401 GAATATTGTC TCCTGAAGGG AAATGGCCAT TGACAAATTG ATTTATTAGA
5451 GACTGTGTTT GATCATTTTG TGGGAAGGAT AATCATTTGT TAACGTAAAGT
5501 AGAAACCTGT GCCTTCTGGA GAATACTATC CATTTATATG TACTCTGGGG
5551 AGAGTGTFTA TACATACAAA TGAAGGACAG GGCTTCACTG GGAAAAACAA
5601 TCCCATGGAA TTTCACATGA TTATCGCGAT GTCAGTGTGG AAGAAGATAT
5651 GGTAAAGCAT TAAATGACAT TAAGACCACA AAATTTGCCA TAATTTGACG
5701 GACTTGTGGT TCTTCTGATT CAGAACCCTT TCTACCCATG TCACGGATAG
5751 GTAGTTTTTC AGAGATCAGA GGCTTAGTTC ATTCTATTAA TTTCCTCATT
5801 CTATTAATAA TCAATTATGC ACCTAGGGTC TCTGAATACG ACTAAACCTT
5851 CCTCAAACTT ATTTGCATTT TCAGTTTGTA TAATATCTTG GTGCAATGA
5901 GCCTCGCAAA TGATCACTTC TGGGTAATAC TCATTCTAAA GGTATGTCAA
5951 CCTTGAGAAAT TCTGGTCTAG ATATTCTAGG GTTTGGTGAA CAAATCTATG
6001 TTCCCATCCA TCCCTTTTCA TTTATTTTTT AGACTTCATT CATTCAGAA
6051 TAATGAGTCC AAAACCTGCT CATCTGTCTT CACGTGGCAC CCTATCTCTT
6101 GATATTTTAA ATTGCAATTT TACAACCTAGA GGCAGTATTA CGGAGCAGAA
6151 AAATCGTGGG TTCTAAGTAC TCTGGGTTAG GATTCTGGCT CCACTACTGA
6201 TTTAATAATG TAGTTTGGGG AAATTTTATT AACCTATGAA ATTATTTCTT
6251 CATTTGGCAA ATGGGGATAA TAATATCTCT CTTGCAGGGC CATTATGACG
6301 ATTCAGGTA TTGTATGCGG TGTACCTGGT ACACGGTATA TGCTCAGGAA
6351 ACAAGACTCT TCATAGTAAT ATTGACGAAT TAACAATATT CTTCAGAAGA
6401 CACTGTGGAG TTGTTTAGGT TACTTGGCTC TTTGTGTGAC CCTAAGTAAT
6451 GAGCATGCCA GTTTGGGGTT ACTATGAAGA GTACTTACCT AAACCTATAA
6501 AATATTAGAG CTAGAAAGGA CCTTAGAATA TCTTCTGCAG TCATGGTTCT
6551 TAAATTTTAA TGTGTTGCTC AATCATCCAG GGATCTCACT GAAGGGCAGA
6601 TTAGGATCCA GGAGGTCTAG GGGAGGGATT GAGATTCCGC ATTTCTAACA
6651 AGTTCTGGAT GCTGCGGGCC CCAACTTAGA GGTGAAAGGT TCTGAAGCTC
6701 TTGACCAAAC CAGGAGACCC AGCAAAGAAG TGGTTTTTCA GACAACTTGC
6751 TTAATTGAAT AATGATTGTT TGCTCTTTAA TTCCAACFTT CAATGCCAAT
6801 TTAGCAAGAA CCAGAGGCTG TGCTAATTGC CACACCAGTC TGGAAACCGA
6851 AATGGATAGC TTCAGGGTAC TTGGACAAAG TTGGAACATC TGCTTTCTAA
6901 TCTCTCCCTC TTTGTATAGC TTTATTTGCC TACCAAGCCT GGTAGTATTG
6951 AAAATCTGCC CTCACATAC TCCCTTAAAT ATAATCAAGT TGAGGCCAGG
7001 CCTGTGCTCT ATCAATAATA TAGGATCCAC GAATTCACAT GTTTGGTTTT
7051 ATGCTTTACT TCTTCAAAGG TGCTTTTAGC AGCATGGAAG AATGGAAAAG

FIGURE 3, page 2 of 61

7101 CACGAGCTTT GGAATATGAA AGCAGATGTG AATCCATCAC TTACCAGTAA
7151 CTTTTAACAA GTCACATCAC TTTTCTGAGT ACCAGGTTTT TGTGGACAA
7201 CAGAAATAAT ATTCTCTATC CTTCAAGGGA ATACTAAATA TAAGTATGAG
7251 AAAAATGCAC AGTGCCTTCT CGTAGATGGT GTTCAGTCAT TCAACAAACA
7301 TTTGTTAGAT ATTTGCTATG TACTAGCTAC ATTACTAGGC ACTGGGGTTA
7351 AATAAGTGAA TAAGACAAGC TGACATTTCA GCGCTCAAGG ATCTTACTGT
7401 CAAGTGGAGA GGATCAAAGG GTACAGACAA ATCAAGGAAC GTGAGAGAAG
7451 TGGTATGGCT GAGATGGATT GAATAAAGGA GCAATGAGAG CTCCTTGCAA
7501 TGTGTGTGGT ACCACTGAGG ATTCTAAATT AACCTTCATT AAGGACTTAG
7551 TAGTGACAGA GGTGAAGTGG GGATAGGTAC ATGATTAATT TACATCCATA
7601 TTACAATGAA ACCTTAACAT TTAAGAGGGA TATTATTGAT GTCTTCATGA
7651 TCCAGAAGAA TCCTCACCTT TGCAACCATC ACTATAGTCA CTCTTGAGA
7701 ATTATGGCCT TTAAGACTGT AGCATGCAAT GACAAAACCT CACAGAGGTA
7751 TGGGTTCTGC CGGCACACTA ATTTCACTCA TTAACAAGT GACTGGCTCC
7801 TATATCCAGG GCTCTCAGCA CGCCTTGCA AAATAACAGA TTATTGCAGC
7851 TCTTGACCT TTGATGCCTC TGGGAATAGT CAAAGCCACA GATGTCAAAT
7901 ATGTAAATGC CAAGATCTAT TATAATTAAA TAGTGCAGGC CTCCTTCAAA
7951 GAAAAAAGC ATGTTGGCTG TGCTGCACGT TCTCCAACCA AATCAGAATG
8001 TTAAGCTCG AAGGTATCTG ACCTCCATT TTTTAAATTA TGAAGATGAA
8051 ATTCAGAAAG GGAAGGTAAC TTATCCAAGA TTACATGGCT AGCTATGATA
8101 GAAAGTTAGA GTTGGAAAGG ACGTTAGAAA GTGAGGGTTT GAAAGGACTT
8151 TAGAAGCTGC TTATTCAATG TTCTCTCTGC CCTTCCCAT CTTAGGCTTC
8201 TCCATTTTTC TTTTATCCAT CAATAAAATG TTAACCTCAA AAAGAATATG
8251 GCAATCTTG GGTAAAAGAT GCTCTGGAAG TGTGAGTCCG GGAGTATTAT
8301 GTGACTAATG TCCTAACTAA GAATAATAAT ATATTATGGA CTAGTTTAA
8351 TCTCTGTTT CACCTTGAAC TGTTACAGGAA GAAAAATAGC CCACGGAAAT
8401 TTTTAAAAA GCTTTTCTCT ATCTGAATTG AGAAAAGGTG ACAGGCATAG
8451 TTGGAACATC TTTTAGGCAG TGCTGGTGAA CTTCAGGCTA GGCCTTGTTT
8501 CATGAAATAA TAAAAATTTT CAAAAATAATG CAGACCATTC CCTTCCAGGG
8551 ATGCTTTCTC TGTAAATGTT TAACCCCAAG AAATCTTTCT GTAAAAATCT
8601 ATAAAAATCT GGATGGTTCC AGGATACAAT TTGCACATTC TCCAATTTAA
8651 CTAACACACA ATCGATTTTT TGTTTTCTTT TTCTTTGGCT TAGCAAGGTT
8701 TTAAGATAGT CTCTTTCTGG CCACAGAGGG AGATGATTGG CCTCTAGAAT
8751 ACCCTTTCTG TGCTTGAGAG AGTCACAAGA CTGCAAGCTC ATGGAGGATG
8801 AGAGTCAAGT AGAGGTGGTG ACATCTCTCC CTTGGCCAAC ATCCCTCTCT
8851 TTCTCTTTCC TTCTGCCTTC AGTGGCAGTA GCAAAAGTCC TCCTTCTCTT
8901 TAGGTAGACA GTCAGCCACT ACAACTGTGG CTTCTGAAA TCCTCAGTGG
8951 AGCTATGTAC TTGGCAGAGA TTGTCTTGA AGAAGGGACT CCATTTCTGA
9001 GCCAGTTGTT GAATGGGGAT ACTTAGCAGT ACAGTGAGGC ATTTCCAGTA
9051 GGATTGTTCA ACCACAATTG CCCACTTTCC AGGCCCAAAG GAATAATTGA
9101 AGGCTATGTA GACTTTTTTT TTTTTTTTTT TTTTTTTTTT TTTGAGATGG
9151 AGTCTCGCTC TGTCGCCAG GCTGGAGTGC AGTGGCACAT CTCGGCTCAC
9201 TGCAAGCTCT TCCCTCCGGG TTCACGCCAT TCTCTGCCT CAGCCTCCCG
9251 AGTAGCTAGG CTAATATAT ATATATTATA CATATATATT TATATTTATA
9301 TATATATATA CCACCACGTC CGGCTAATAT ATATTATATC TTTTTTTTTT
9351 TAGTAGGAAA GGGGTTTCAC CATGTTAGCC AGTATGGTCT CGATCTCCTG
9401 ACCTCGTGAT CCACCAGCCT CAGCCTCCCA AAGTGCTGGG ATACAGGCG
9451 TGAGCCACCG TGCCGACCA TGCTATGTAA ACTTTTTAGC AGAAGCTTTA
9501 GCTATTGTGT CCCGAAGGGC CCCAGGTCAT GATGAAATGT CTTTTTTTTT
9551 TTTTGCTCTT TTTCTTCTTA ATTACTGAGA CTGTCAAAGA ATATGTCAAA
9601 GCATGACATA TTCCAACCTC AGGATCCATA AAACACCCCA AGTTCTGTGG
9651 AGACCCTATC ACATCTGCAA AACTCTCCAG GAAGTCCAGA GCCCTCCTGG
9701 TTAATTTGTT TTAGGGACTA GGCATGCGGT ATCCCTGAC AACACTGGAT
9751 CAGCAATTCT CCTACCTAAG TCAGTCCAC ACCATGTGCA GCAGAGTATC
9801 CAGTGCCCTT GCCCTGGTCT GCTCACATTG GTTTGCTCTC CAGAATAATA
9851 ATTCCTCAAT ATCCACAAGA GATTGATTCC AGAACTACTC CGAGGATACC
9901 AAAAAATCCT AGATGCTCAA GTACCTGGTA TAAATGGCA CAGTATTGG
9951 CATATGACCT AGGCATATTC TCTCCCATAT ACTTTATTTA TTTATTTATT
10001 TCGGGACAGA ATCTCATTCT GTCGCCAGG CTGTCACTCG CTTATTGCAA
10051 CCTCTGCCTC CCAGGTTCAA GCAATTCTCC TGCTCAGCC TCCTAAGTAG
10101 CTGGGACTAC AGACGCATGT CACCACGCCT GGCTACTTTT TGTATTTTAA
10151 GTAGAGACAG AGTTTCACCA TGTGGCCAG GCTGGTCTCA AACACCTGAC
10201 CTCAAGTGAT CGGCCACCT TGGCCTCCCA AAAAGCTGGG ATTACAGCG
10251 TGAGCTACCA CGTCCAGCCC CCCATATACT TTAATCATC TCTAGATTAC
10301 TTATAATACC TAATACAATG TAAATGTTAT ATAGTTGTTT TAATGTATTG
10351 CTTTTTTTAT TTGTATTGTT TTTTATTGCT GTATTATCCT TTTTATGTT
10401 TTATTTTTTC AAATATTTTC TACCCGTGGC ACCACAGTT GGTGGTGGGA
10451 ACCTGCGGTT GGTGGAGCCC ATGGATGTGA AGGGCTGATA GTATGAGAAA
10501 ACTCAGAGGT GCAGAGTTGG AGAGCACATC GGGGAGAATG TCAGCATGGG
10551 TTAATAAAGA CACACTGTGG TTGGAGATGA TCACATGAAT GGCCACTTCA
10601 AAAATGAATG GGTCTCATCC TCAAAGCAGG CTCTCTGGG CACTGCTTGG

FIGURE 3, page 3 of 61

10651 GAAGGTGCTA ATTGGAGCTT CAGGCAACAA TAATAAGGGG ATACAGGTGG
10701 GGATCCTGCC ATGGGCGTAG CTTACTTTCT CTGGACTCTT CTGGGTCTTA
10751 AGGCCAGTTT CCTCATCCAC TCAAAAGAAT GACAGCAAGG TGAGCAAAGC
10801 AAGGCAGGTA AATGAGGAGG ACTCTTCTCG GCTGTCCAAC TTTTTCATCAA
10851 CTTCCCAAAG GTTTTTGGAT GGGACATGAG CACTCATTCC TTCTCCACCC
10901 TTTAGCTAGG CCTGTGCAAC TCCAGGAGGA AGGTAGAAGA GGTTCAGAGCT
10951 GTGGTCTTTC ACTTATTCAA GATGTTTCCT TAGTGTTTTG TGTTTGGGTT
11001 TTTTTTGTTC TTTTTTTTTT GACAGAGTCT TGCTCTGTTG CCCAGGCTGG
11051 AGTGAAGTGA AGTGGCATAA TCTGAGCTCA CTGCAACCTC TGCTTTTCGAG
11101 TTCAAGCGAT TCTCATGCCT CAGCCTCCTG CATAGCTGGG ACTACAGGCA
11151 TATGCTACCA TGCCTGGCTA ATTTTTGTAT TTTTAGTAGA GACGGGGTTT
11201 TGCCATGTTG GCCAGGCTGA TCTCAAACCTC CTGACTTCAG GTGATCCAGC
11251 CACCTTGGCC TCCCAAAGTG CTGGGATTAC AGGTATGAAC CACTGCACCT
11301 GGGCCCTTAT TGTGTGTTTT TAAAAGAGAA ACTAAGCTGT GCTTCCAGAA
11351 CCCAGTTTGA GAAAGTTTGA AGACCTGGCA TAGAGCCAGT GACATATAAT
11401 TGTTAGTTGA AGAAAGAGAG CTCCTTGATC TGCAAATAGA GCACGGCCCC
11451 ATATTTAAAT TCTGCACATT CTAGAAGCAT TTTGCAAGAA TCAAATGCTT
11501 TGAGGATTTT GCTAAATAAC CATGGAGGAA AGCACTAGAC AAATATTTTC
11551 AGATGGCATG AGAGTTATCA TTCATAGGAA TTATATTTCC ACTCCTACCA
11601 CTTACTGGGG ACCCAAGTAA GAAATTACTT GGATAAGCAG AGGAGAATTT
11651 AAAGTTGAAT GTGGTGGAACT TTATATGGA AAAAATATGT TTTTCTGAAA
11701 ACTGGATATG TGTATATATA TAAGTTCAGT TGTCATTTTG GAACCATCCT
11751 TACTCTTCCT AGCTAAGGAT TAGCATACAT AGGTGCAACT TGACTAACTC
11801 TGCTTGAGCC CAATTCAGTT ACCTTTTGGT GGGTAGGGTT CATGAAGAAG
11851 CAGTTATTTG TGGAGTGTAT AGAAACCACT CTATTGTAGG TTCTTTAGTT
11901 GGTACTTTCA AAATAAGTGA CATCCAAATA GTAACCTAAT ATTCCAAATA
11951 TGGCTGCAAA ACAAAATTGTC GATTATGGAT GACTACTACT GCCATCTCTC
12001 CATACCAGTC CATCTTCTGC CAGGCTGTTT GGTCTTGATT TGTGACCTT
12051 TTAGGTTTCT CCCCATGTAT TCCACATGAC CTTCAACCAAC CCCACTTCTA
12101 TCTCCAAACG TCTTTCTGAG TTGTGGGGAT GCAGATGTAT TCTGCCACCA
12151 TCACAAGGCG TAACCGAGCC CTGGCTGCGG ATCTTCATTG TTGTTACAT
12201 TATTTCCATT CTTACACCTT ACTTCATGTT TGTACACTAT TTTCTTACAT
12251 TTGCTGTCTC TTCTAAACAT TCTTTGCTGC ATCCACTTTT TCTCTATTTG
12301 TGCTCTAGGT GCTGCAGAGG CTAATGCTGG GTTTCCTTTC ATTCTCCTT
12351 GCACTCAGCA CTTCCCTTCT CAATTCCTTT TGCCATGTCT CCACTTTAAA
12401 TCTTAACCTA CTCCAGATAG TCTTTTCTCT CACACTATTG GCATCTGTGC
12451 TTGGGTTGCT TTCAGTCTAT TCTCTGATCT ATGATTTCTT TGCATGATCA
12501 AGAAGGTGCC ATGAAAGGAT CCCTTAAGAA AGCCTGTCTT TTAGCCAGAA
12551 CGAACTAGCT TCATGATAGC ACCAGGAAGA CTGATATCTC CCAGGAAACA
12601 AACCACCTCAT GGTGGTGCTC TTTTTCCTT CACTATGAAG TGTGTGCTG
12651 CCTGTATGTG AAAACGAGAG GGTTTAATTG TAAGGATGCA GCACAGATTG
12701 GGACTGGCAT CAGAAAGCCA TTGGGGACTG AGGTAGCTCT AGAGACCGCT
12751 TTCTGTCTCC AGTGCTCTCC CTCCTGGGTG ACATGTTTTG TGTCTCCTGG
12801 CATCTCTGCT TCTCTCTATG GGCTTCTTTA TTATTTGCAG CTGCAATGG
12851 TACCCCAAAG TCCTAGCTCA TGGCTCCTCT CTGCATATAT GCTTTCTGTT
12901 CCTACCCACA AAGCTCTTTC TATTTCTCTA GTTTAAATTT TCAAGAGAAG
12951 AAATCTGATT TTTTTTAAAC CTGGTCAATG CAAAGACCAC TGACCAACATA
13001 TGAGCTGGTT GCCCTGTGTC AAGTGCCCCC TTCTCCCACC CTCTTCCCCT
13051 CCCCATCTGG TCTGTCAATA CTGAATGATG GAGTGGGAAA TTGAAATTGC
13101 CATGGGAATT CCATGATAAG CTATCTAAAC AGTTTTATCT ATAAGTGGTA
13151 GACAGAGTCA CTTAGAAGGG AGTCCCAGGT GAGACAGGCA CCTGTCAACT
13201 CCAAACCTGGC ACACATTCTA AGGTCTGCAA CACCCAGAG AGAGCACTGA
13251 TTTGTAGTGT GCCTGTACTG GGGCGGTAGG CTGGAGAAATG GGAGAAATAG
13301 CCACTTCAGA ATCCCCCAGC CCAAATGCAT CAAGCTCACT ATAGACTCTG
13351 CAGCCACGAT TCAGCTGGCT TCTGCTCAGA TCAACAGAAA ACATTCTTAG
13401 TGAATGATGC TTGTGGCACA TATCTCAAGG CTACCAGGGT CATTTCTTCC
13451 CATTTACTTT TTCTCTGATC TATCCTCTCC AGGACACTAG CGTCAGAAGA
13501 TAATCTTCCG TCGTTTTTCAG GTACACTATT TGGGTACTGA GTCACTTTCA
13551 AAGCCTCTTT CTGGGTTTGG ATTTCCAGAG CAGCCTGTGC TGTAAAGCAA
13601 GACAGAAAGC TTCCCTGCCA TTCATGCCTG CCAGGGATAG AATGACAGTA
13651 CTCCTGAGGC TCTCCCTCCC CACCCCTCCC CTGCTGGACA GCTGATCTGC
13701 TGGACTCAGC CAGAGCCAGC AGGCACCCCC TCTTTATCCT AGGAGCTGCA
13751 AACTTGATCG CTTTCCAGGA AATCCCCAGA AGCTGGAGTA TCCTCATCTA
13801 CATGTGGCAC AGTGTATGGT TGTGTCAGGT GCTCATGTCC CATTGCATAG
13851 GACTGGGGTG GAAAATAGGG ACCGTCCTTT TGTGTCAGCT CCAGTCAATG
13901 AGTAGTGGCC ATCCAGGGGG CCATCTTGA AAGGACTTGT GAGGCTGTAT
13951 CTGCGCTCAG TTTGTAGTGT GAGAAGAAAA GGCCAAATAT CTGCCAATCC
14001 TAGTCTGGG ATTCAAGATA GAAAGAACTG CATGGAGTGA AGAAACTAGG
14051 AGTCTCCATT TCACTGAGAT GCATAAGAAAT GAAATTATTG TCACTATTTT
14101 TTCAATACTG GGCCAATCCT AATAAGAAAA CCCTTTTTGA GTCTCTCTTT
14151 TCTTTATCCT ACATATAACA CAGAAGCTTT TTCTATTCCC TGGATGAACC

FIGURE 3, page 4 of 61

14201	CACAGGGACA	GAAATTCCTG	TTGGACAGGT	GAAGCAGATA	ATTTCTTTAT
14251	CAGACTAGAA	TCTTCCAGAA	GCACTGCTAA	CCTAGTGAGT	TTTGTACTCT
14301	AGACAGGTGG	TTCTCAAGCC	AGCTCCCCAC	CGCAGGCCTT	TTTCATGGTC
14351	TGCCCCCTCCC	TGTGGAACCC	ATGTTTTAGG	TTATTAGCTG	ATAATTGGAT
14401	TTCTATTTTT	TCTCATAAAA	TACAGCAAAA	GATAGCTAGT	GATATTATGA
14451	TGAGTTAATG	TAATTATAGC	CAAAGCAGAG	AGAAACAACA	TTTTAATTAA
14501	CCTGTGTGGA	CTGCTGGAAG	AATATAAACT	TTCTATTTTG	GGGGTTGAGT
14551	AGAGACAGAA	ATGAACACAG	CCAAGGGCTG	ACTGTCAGAG	GACATTTAAC
14601	TGATGTAAAA	TGCTTTGAAA	TTATTGGGCA	CTCATTGTTT	AAAGTTGTTT
14651	TTGATGATGG	TAACCTCCGT	AGGGGATCAG	AACATGCTGG	AAAGAATGGG
14701	CACAGCTTTG	GTTACCTGGG	CCTTACCACT	GTTATTCAGG	CCTCTGAGAA
14751	AGCTTACTAT	TGTTGTTATG	TTTCTTACAT	AATAAACTT	CTAATATTTG
14801	TATGAAAAACA	TAGAATTCCA	CTTTTAAAGA	TGTAAGGATT	TTGTCATACC
14851	ATTAGGTTAG	CTATGATCAC	TTGATTCTAG	GTCTAAGAAA	TATTAAGTAA
14901	TTTACCCGCG	AACACAGAGT	TTTAAGGGTA	AGTATCAAAA	CCTTGATCTT
14951	CTAATACCAC	ATATTCTCAC	TCATATGTGG	GAGCTAAAAA	TATTGAGCTC
15001	AAAAAGGTAG	AGAGTAGAAT	TGTAGTTATT	AGAGGATGCG	AAGGAGGATA
15051	GGGAGAGGTT	GTTTAATGGA	TACAATGTGA	AGTTATGTAA	GAGGAGTAAG
15101	TTCTAGTGTT	TTGTAGCACT	GTAGGGTGAA	TATGGTTAAC	AGTAATTTAG
15151	TGTATATTTA	AAAAAAAATA	GACAGGATTC	TGAATATTCA	CAAAGAAAATG
15201	ATAAATATTC	AGCTGGGCGT	GGTTGCTCAC	GCCTATATTC	CCAGCATTTT
15251	GGGAGGCCGA	GGTGGATGGA	TCACCTAAGG	TCAGGAGTTT	GAGATCAGCC
15301	TGGACAACAT	GGTGAACACC	CGTCTCTACT	ATAAATACAA	AAAATTAGCT
15351	GGGCATGGTG	CGGCACACCT	GTAGTCCTAG	CTACTTAAGA	GGCTGAGGCA
15401	GGAGAAATCGC	TTGAACCTGG	GAGGCAGAGG	TTGCAGTGAG	CCGAGATCAC
15451	GCCACTGCAC	TCCAGCCTGG	GTGACAGAGT	GACACTCTGT	CTCAAAAAAA
15501	AAAAAAAATA	GAATGATAAA	TATTTAAGGT	GATAGATATG	CTAATTACCC
15551	TGATTTGATC	ATTACACTTT	GTATACATGT	GTCAAAATAT	CACTCTGTAT
15601	CCATACATAT	GTATAATTAT	TATGTGTCAA	CTAAAAATAA	AAGGAAAAAA
15651	ATCATTTTCT	TGTATTTACA	AAACATATGT	AACCATTAAG	AATAATGTTT
15701	TAAATTATAT	CTAAGGGTGT	GATAAAATTA	CAGTATAAGA	TTGTGCTTGA
15751	AAAAGTGCAA	TAAGAAGTAA	ATATGTACAG	ATGAGAAAAA	GTGCAAAGAA
15801	CTAAGTCCTA	AGCAGACTAT	ACCTTTCCCT	CTGCATGGTA	CTTCTCTGGC
15851	CTTTTGCTTT	GAAAGATTTT	GCACCCAGCA	TGGCAAGTGG	TTAGCAGAGG
15901	CAGCATTCTC	CACCTGTGCG	TTGGCTTTGG	GAGCCATATA	TGTTGTTTCT
15951	CTGGGTGTGG	AGTGGAAAGG	CTGCATGTTG	TATTAATGCA	TTGTTAAGAA
16001	CCTCTAAGAG	TGATTCTCTT	TGGGAAGTGA	GACTGACGGT	CCGAATGGTG
16051	GAAAGACAAC	TTTTAATCTT	TTACTTTACA	CTTTGTGCAC	TTTTAAATGT
16101	TTAACAATGAG	CATGCATTTT	TTTAATAATA	AAAATACAAA	AAAATTTTAG
16151	CCCTAGATCT	TCTGATTTTA	AACTGCATAT	TCTTTCTATT	GTGTTACATA
16201	TTTTAGCATG	AGAATAAGGT	TATGAAGCTG	GAAGTAGCAG	GCTCCCTTTT
16251	CCTCATATGT	AGGAAGTTAA	GAATGCATTC	TACGTTTCTT	CTTTAAGGAG
16301	TTGGCTTCTT	TCCTTTTAAC	ATAGGGGTAA	CTGGGCCAG	GGAGTTTGGC
16351	AAGGGCCAAA	TAAAGTCCTT	AATGCCCAGC	TCAGAAATCT	GGATTCACCA
16401	TCCTTGACTG	CTGGCTCCAA	CCCACCCTCA	CCTGAGCTGG	TCTGCAGAGG
16451	ATTCTTGTTT	GCTGCACTTC	ATCACCAGCA	ACTACCAGCA	GATGATGCTT
16501	TGGCCTGCTG	CTGGGGTAAC	AGGGCGAGGC	TGGCTCAGGA	CCATGTTTTT
16551	AGATCAGGGG	ACCTCCTTTG	ATGCCATGTC	CATGGTGTCC	GAGGGCAGCC
16601	AGGATCAAGG	GCTAGACGGG	GCAGTGATGA	GATGAGAGCA	GGAGGGGCTC
16651	AGCTGCAGCC	CCAGGAGAGC	CTATGCCAGC	CCTGTTGACC	AAGGAGGACA
16701	GAGACAAGAG	GAGAGCGGAG	GCAGAGGGGT	GAGTGTCTAT	CGCTCAATGT
16751	ATAATCGGCA	GACATTTGGG	GAGCTCATAC	TGTGGGCTAA	GCACAGGGAA
16801	GAAAGGCACA	GTCCTGTGCC	TCAGGGAGGT	CACAGTTGAT	AGGGAAGACA
16851	AGCATATGTG	CTAGCTGCTA	TAGAAGGGGG	AACCACTGAG	GGCTGTGGCC
16901	ACACAGAGGA	AACACCCCTT	TCTTGTTTTT	TTGTCAGGGA	TTTCAAGTTG
16951	CGTCATTAGA	AGTGACTTGC	ACAACCCCTT	CCTCCAGTCA	ATTGAGAAAG
17001	ACTTGTTAAG	CAGGAATGAT	GAATTAGCTT	CAGCTTGTGG	GGCACACACA
17051	GATGGAAGTA	TAAGGTGGCC	TCAGGAGTAA	GTAATCCCTC	ATGCAAGCTG
17101	TGTCCTTAGA	CCAGAGCAGC	ACCCGGTTCT	TCCCATTTTC	TAGTAAAGGT
17151	GCCTCACACA	CCACCAGGAC	ACAATTTATG	CCTGCAGAA	GAATGAATGA
17201	ATGAATGAGT	GAATTCCTGG	AACCTCTTCT	GCTTATGTGC	CACACCAGGT
17251	TGCAGCAAGC	CCAGGGACAC	CTGGGACTGG	AATTGGGCTC	TCAGGTGTAA
17301	TGACCAAGGA	GCACCCACCA	TTTTGCATTC	TTTCAAGCTT	CCTCCTCTCC
17351	TGTCCTAGCT	TCAGCAATAT	CCACAGAGCC	CTCTGAGCAA	CTCTGAGCCT
17401	CTCCACAGCC	TGACGCCTGC	CTGGGCACCA	GCTCTTCAGA	GGGTGTTTCT
17451	GTGCTGCTCA	GCTACCTCTG	AGCCTGGGCT	GCCTTTGATG	CTCAGGAGAC
17501	ACCTGTAAAT	TCAATTAAGC	CTTCTCTCCA	GGGAGCATGT	AATTATGTCC
17551	TATCTGGGCC	TTGTAATGAC	AGCCCCCTGC	CACTCTACAG	GGAGTTGCCC
17601	TGCTCAGCTG	CCCAGAACCT	TTCCCTGGGA	GGAACTAAT	CTGCTTAGCC
17651	CAGATTGGAC	GCAGTTCTGC	ACAGCACTTT	TCCGAATGCC	TCTGAAATGA
17701	GTCCTCACTG	ACAGAACGGG	CCCCTCTG	GGGAAGTGG	GGCTCTCTTG

FIGURE 3, page 5 of 61

17751 GTCCTGCACT GCTCTTTGCC ATACAGATCT GTCTGCCCAG GATTTTCTTT
17801 GGGTGTGTAG GAGGCTGAGA GAGCTCCCTT TTCTTCTCAT GGCTAAATCC
17851 CTTGGTCTTT CCAGCCCTCC TGGGGGTTAG AAGGGAGAGG GAAAAAAGAA
17901 AAGACTGAAC TTGTGTGTGT TGTCTTGTGT GTTGTGTGTG TTTGCCTGTT
17951 TTCTATGTTG TCTTGTGGGG AGAGGGTATA AGATTGATTG ACAGAGTGGC
18001 ACAGTTCCCT TGCAAAATTC TCAATTTGAAT TTCTCAGGTA AGATGTTTAC
18051 ATTTCTCTGT TAAGATGCTC CAATTTCTCT GGTAAAGATT TCTCTGGTAA
18101 GATGCTCATG AATTGGTGGG GGTGTGGCG GGATGTGGGA AGTGTGCCTG
18151 CTCTTTCTGA GTTTTGGGGG AAGTTGCCTT AATTCTCTGC ATGACTTTCT
18201 TTGCTCCTTT GGGCTTCATT TCTGTGCAAT GTAGTCTGAC ATGAATACTG
18251 CTCAGGGAGG TGTGCTTCC CACTGCCAC GCCACTGGAA ACCAGTAGCC
18301 CAGGTTTACT CGAGTCTCC TTTTGAGGAA CCAAATTTCT TTCATTTCTT
18351 TTATGTGAGA TCTGCCAAA ATGCCATTGG CAAGCTGTAC TGGGTTGAAT
18401 AGTGTCTTTC TCTCTCCCAA ATGTATGTCT ACTCCAAACC ACAGGATACT
18451 ACCTTATTTG GGAATAGGGC TTTTGCAGGT GTAACCATTA ATAGTTATGA
18501 TGAGGTTATA CTAGATTAGA ATGGGCCCTA GATCCTATGA CTGGTATCCT
18551 TACAAGAAGG CCATGTGATG ACAAAGACAA AGAATGGAGT GAGGCACCCA
18601 AGGAACCTCA GAGATTGCTA GGAACACCA GAAGCTTGA GGAAGGCATG
18651 GAACAGATTG TCCTCTCGGA CCTCTAGAAG GAATCAGTCC TGCTGATACC
18701 TTGATTTTGG ACTTCTAGCC TCCAGACCTG TTGGGGAGAA TACATTTCTA
18751 CTGTTTAAAG CTACCACGTT TGTGGCGATT TGTCACAGCA GCCATAGGAA
18801 ACTAATACAT ACAACCTGCA CAATGCCTAC TCCAGCATTC CATAGCAAGT
18851 CAAGGGCCTC CCAATTATGT CCAAAGGACT GATAGAAGAG CGACCTCTGT
18901 GCTACTTGTC CCTCAGGACG CTGACCCACA GCTCTCAAGG CAGGAGTAGG
18951 CCAGAGCTCA TTCACAACT TTGTTATATA GGGGTTCCAA TTGTAAACCT
19001 TTTGAATTCC TGTTTGCAAG TAGATGAGGG TTGAAAATA AATGGCCACT
19051 TTCTCTAAGC CACATACCCC AATCTGTTTT GTTACTTCAT TACAGCTGTT
19101 ATAATGGCCT CCTCTTCTAT CTTCCAATCT CCATAGCCCT GGTTCCTTGA
19151 TAGTTCCTTT TTTTCTTTT TCTTTTTTGG AGGCGGAGTC TCGCACTGTC
19201 GCCTGGGCTG GAGTGCAGTG GCACGATCTC GGCTCACTGC CACCTCTGCC
19251 TCCAGGCTTC AAGCAAGTCT CCTGCCTCAG CCACCTGAGT AGCTGGGATT
19301 ACAGGCACCT GCCACCATGC CTGGCCAATT TTTTGTACTT TTAGCAGAGG
19351 TGGGGTTTCA CCATGTTGGC CAGGCTGGTC TTGAATCCT GACCTCGTGA
19401 TCCACCCACC TCAGCCTCTC AAAGTGCGGG GATTACAGGC ATGAGCTACC
19451 GCGCCTGGCC AGATAGTTCT TAAACAACCTG CCCAGAAAGT CCAGCCTAGG
19501 CAGGGGCAGC CATGAAGTGC ATTGCTCATT TCTGCTTTT GACCTTTTTCG
19551 ATGGCTGAAC TCTAGGCCAT GGAACAACAG GACCCACTGT ATAGTTAAGA
19601 GTCATTTTGT GACTAGGGAG AAAAAAAGG GCCTATTCTC CAAATCCCTT
19651 TTCCCTCTGG AGTTCTCGG TGCCTTAAAG CTTGTCTTGA GCTACAGGTG
19701 TGTTACCTGC TTATCCCAA ATGCAGGCAT GTTACCTGCT TTCCTCTGCA
19751 AAGAGAGGCA GGCCTGGCTG GGGCACAGCT GAAGATGTCA AGGCCAACCT
19801 AAGGGCAGCC AAGCTATGGC TGTCTGTGAC AAGAGGAGAG CAGCGGTGAT
19851 GGGAGGGTAG GAGGCATTGA GTTCATGTCC GGGTTTGCTT CCTACCTCC
19901 TATCACTGCT TGATGATCCT ATCACTGTCT TGATGAGTTC AAGACAGAAG
19951 TTTGCCATCAT CATTGCCACA ATAAATCAC CAATAACAGA AGTGTGAAAG
20001 CAGCGATGTG AGTGAAGCC CATATATACA CAGGGGGTAA TAGAGCAGCA
20051 TGATTAATAA TGTGGCCTTG TTATCAGACA GGCTGATTTG GAGTCCAGC
20101 TACTTGTGTG TGACCTGAAC TAGAGGAAGT TATCTAACCT TTCATTTTAC
20151 TCATTTACAT AACATGGCTA ATAATAGCAC CTACCTTATA GGGTTATTGT
20201 GAGGATTGAA TACAATTATG CAATATAAAA CGTTTAGCAT AGTGCCTAGT
20251 CTAAATTCCT CACCAGGGGT ATGATGTACT AGTTTTAGT TAAGTAATTA
20301 GTATCCTGGA CATGTCACAG CCATTTGACC TATCTGGGCC AGCGTTTTCG
20351 TCAGGTTCCC CCAGCAGTAA TTGTATTCCC TCCCCAATCC CGGGATTAGC
20401 TTTTAGGAAG AAACAGTTGA TCTAAAGATA GAAAGTCAGA GTAGTGTCTG
20451 GAGGAAGGTA GAGGAAATG TCATTATCTG GGTTTTCTTT GATGATGTCA
20501 GGAACATGA CAGGCTGCTC CCAAAGACAG AGCAGCCCCA GGACAGGGAA
20551 GAAGGTGACC TTGAGGTTGA CTCCTCTGCA TCCCGATGTG GACGTATAGG
20601 ACTTGTTTTG GAGATGAAGG GAAAGAAAGA TGGAAATGTAG AAAGTGAAGG
20651 AGAATAAAG AAGTGGGAGG AAGAAGGGCT GGGAGGAGGA TGGGCAAGT
20701 CTTTCTGGTC TCAAGGATAA TTACATGTGA AATCACTGTC CAGTGGGACT
20751 CTGGGGCTGG AGCAGCTACA ATAATTACAG TACAGGCTGC AGAGGGCTCT
20801 TGGGCATGTC TTGGAGCAGC CTGTAGGCAG TACTGAGGCC TCTCTCACTA
20851 GACCCATCTC CCAGATCACA TAGTACACAC ACCTTCCACC CCCGGGCTG
20901 TTAATGATCA AAAAGCTTAA ACAGAACAAT TACAGCTTCA GAGTGAACC
20951 ATATCTCTGG GCTCCTGTGA TGAAAACCAC AAGCCTGTCA GGCTGGGGCT
21001 GCTTCACATG GAGGGCCCTG CTCTTAATGG CCAAGTGATC TGGAGCAAGA
21051 CCGTGACTC TCCCATAGTG CTGTGGATGG TGCTGCCTCT CCCCAGCAT
21101 CCCCAGAAGA GGAAGTTCAG TAACTAAGGA ATTAACATATT CTCCAGCCTG
21151 ATTCTGCTTT TCCCAATCAG GGCTTTATAC CTTTCTTTT CATCCCTATA
21201 TTTGGAGATG AGTCACCCCT GCCTTCATTT TACCTAAGCA AGGCAGTTTC
21251 CTGTAACCTA ATGAAGTGCC AAACAATACT GTGATTTATT TAGTACTTAC

FIGURE 3, page 6 of 61

21301 TGTGTGCCAG GAATTCCAGC AGGTGTTGGA CATTATGAT GTATGATCCT
21351 TACACTAAGC CTGCAATGGT GCAACCCAG CCCTGACCAC TCTGTGCTTC
21401 CCTTTTCACA ACACAGCTTG TCACTAAATC CAAGTCAGGA ATTCCAGGTT
21451 AGGCTTGAGT TGTGCAGAGC CCTTAACTGA AATTTGCCAT GGTGAGGCA
21501 TGATTGCAAT CACTGACAAC TCCTCCCGGC TCTACACACC TACTTGTGAT
21551 ATTCACGCCC TGATCACGGC CCCACTCGCA TCTCTTCCCA CTTTAGAAGT
21601 TCTTTCCTAT AGAACACGTT GCTGCTGCCC TGTTCTGGTC ACTGATCAGC
21651 CCTGGCCTAA CCACTGGCTA AGCTTTGTGC TTGCACATAG CTGGTTGAAT
21701 CGTATGTATT GCTGTTTGTG TACATCAAAA ATATAATAAT AATATCGGCA
21751 ATTTTATGTG TTTCAATCAA CATGAGGGAC CCAGCATTC TACCTTGTCG
21801 CTTTGTAAAC CCTGCTGCTC TCAAATCTCC ACTAGCTGTT TCCTGAGCAG
21851 AAGGAGATAA AAGGCTGGCT CACACCCCA TGTTTTTACT GGTACAGTT
21901 ACTGCCACCA TCCAAGGCTG AAGAGACTTC CTTTGTGTTA GGGCTAAAAC
21951 CTTTATGCTT TGTCTCTGTA TCCCTTCCCT CAAAAGAAAA
22001 AAGTACCCCT TTCTGCCAAC CCTCTCCCAT GCCAACTAAA CAAGCAAGCA
22051 AGCAAAACAC AAAGAAAAGG TGATATTACA GATGCTGCTC AGCCTATGAT
22101 GGGGTTTACAT CCTGATAAAC CCATCACAAG GGATGTAATT CCATTGCAAG
22151 TTACAAATAC CATAAGTCAA AAATGTATTT ATTTTATATA ACCCACAGAA
22201 CGTGATAGCT TAGCTTAGCC TACTTGATCA TGTTTCAAGG ACTTATATTC
22251 GTCTACAAGT GGACAAAAAC ATATAAAACA AAGCCTATTT TAAATAAAGG
22301 TGTTGAATAT CTCATATAAT TTATTGAATA TTGTAAGTAA AGTGAAAAAT
22351 AGAATGTTTT TCTGGATACT CAAAGTATAG TTTCTACTGA ATGCATATCA
22401 CTTTTTGCACC ATCATAAACT TCAAAAATTG TCGGTCGAAC CTTCTGAGT
22451 CAGGAATCCT GTCTGTACAG GGTATAAAGG AGGAAAGCAT CAGCTTTGGA
22501 GGCAGGTGGA CCTGTGTTTG AACCCCTGATT CTGCTAGAGC TTGACAATGC
22551 ATATTGTTTT TCTATTGCTA AACTAATTAC TACAACAAC ACATTATTT
22601 CTCAGTTTTT ATGAATCATG AGTCCAGGCA CAATTTAGCT GCAGTTAAGG
22651 TGTTAGCTGG GGCTGCTGTC TTATCTGAAG CATGGGGGTG GGGGTGTGGA
22701 TTCCAAGGTC AGGTGTTTGT TGGCAAATT AATTTTCTTG CAGCTATAGA
22751 ACTCATGGCT TGCTTCTTCA AGGACACGGG GAGAGAGAAT CTCCTCACATC
22801 TTTTAAAGGG TTCACCTGAT TAGGTCAGGT CCACTCAGGA CAGTTTCCCT
22851 TAAAGTCAAG GCTTAATAGT CAACTGATTA GGGACCCTAA TTATATCTGC
22901 AAAATACCTT CACCATTGCC ATGTAACATA ATCATGGCAA ATAATCACAG
22951 GTCCCAAATG TTAGCAGGTC CCACTCACAC TTGAGGGAGG GGATTATATA
23001 GGGCATGTTT TCGCGGAGAG AAGGAATCTT ACAGCCACAT TGGAACTCTG
23051 CTTCCATGCT ATTTGACCTC AGGCAAATTG ACTAATCTCT TGAAGTTCA
23101 ATTTCCCTTAC CTGGAATAAA AGGACAATAA GATCAGCCAT ATAAGGCTAT
23151 GACAAAGACT AAATGAGATA GAATAGGCTG GAAAAGTCTT GCAGATAGCA
23201 GACACAAGTA TATAACAATT TCCCTCCTAC TGTTCTTTTT GTTTTTTACC
23251 TATCCTGCAG TCTCTGTCAC TTCAAATACC ATAGAAAACC TTTCCAAGCA
23301 GCCCAAATCA TGCCCCCAAA TAGTCACGTC TCATTATTCA TAGCAGTTAT
23351 GTTCCATAAA GTTAGCACAA ACTCCGAATG AGTGAATCCT AAAGCGTTGC
23401 TCGTGGAGGA AATACAGGCT GCTGGTCACA ATATTTTATAT CAACTGATCA
23451 ATATATACCT TGTCTTATGT GTGTTTCTGC TTCAAGACAC TTTATTTAAT
23501 ATATACGTTG ATTCATTAAC TCTGAACCTC CTAGGCAACA GCATTATAAC
23551 TCCTGCCTTC ACAAAGCTTA TCTAACACAC ACATTTCTCT CTCAGGCACA
23601 TCCAGCTTCT TTGCACTTCA GGATTCAGCA GTATGCTTAA GGGCCATTTT
23651 CAACAGCAAA CTCATCAGCG CAAACACAAA CATGTGAAAA ACGTAGCACT
23701 AAAGAGACTG CAAAAGGAC ACTGGCTTAC AGCATGGAAG CTGGAAGGAG
23751 AAGGCAGAGA ATCACCTTGT TCCACTTCAG CTATGAATAT GCAGTCAGGC
23801 CACCCAGTCA TTCAAATTTT ATAAATATAC TCTAATATAT ATATAAATAC
23851 CAGGCAGGGT TATTTTTTTC CTCAAGTCAT TTTTCTAATT TTTTTTAAAT
23901 GAATAGATAG AAGAGCTGAA GTAAGGGTCA GGAGCAAGAG CTCTGCTTCC
23951 TTTTCCCTTG CTGGGCTTCG TTAGAGAGCC ATCATCTCCT CAATATGCTC
24001 CCCAACTCTT CTAGGCATTG GATGAGTTTG CTGCAGATAC GAAACCCAAC
24051 TTTGCCAGTC ACTTCATACT AACAGGTGAA ATGTAGTGGA GGAGCCTTTT
24101 GAAGACAGGG ACTCAGCCCC CCATTAGCCT CATTCGAGAC CTAGATTCTC
24151 GCCAAATTA ATTTGGCTGG AACTTCCCAG CCATGGCATT GTCGACATTA
24201 CACATCTTCC ACTGTAATGT CAATTACCAT TTTATTGAGC CGAATGCTGG
24251 AGAGTTAATG TTCAAGTGGT TAGAGCTGGC TACGGGTGGG CTGAACAAGA
24301 TGCTTTTCC TTCATTCCCT CTGCCTGTGG TGAAGGATTG TAACCAGCCC
24351 TGGCTGGCAG CACTTTGAAG CTCACCCAGA GTGCTCCTGG GGACATCTTC
24401 TCAGAGCGCT ATCATTGGA CATGCTGTCT TCTGGGCTG TCTTCTCTCC
24451 TTCTTCTTTC CCTCCCTCCC TCCCTCTTTT CCTTCTTCC TTCCTTCTT
24501 CTTTCTTCTC ATCTGCTTTA AAACCAGCTG CCTTGAGTGC TTGTCTTGGC
24551 GCCCTTCATT AGTGCCATTG CAATCATCCC TCCTGCCTAC CCTGCTAACC
24601 ACAGCTTGTG AGTCCACAAC AGCAACAGCT GTGTGCTGGG GTGCAGCAGC
24651 TGGAGGGCCA AAGGTAGGGC TGGGGGACAG GGTGTTGGGA TGGTTTTCTG
24701 GGGCAGATGA GTTTATACGT TTCTTTCATG TCCCCTTCCCT CCCACATAGA
24751 CTTTTATTTT CCCAAAGGAA AACAGAAAAC AATGATCTGT TTGACAGTGT
24801 TGCTATCATT GGGCATCAAA CCTATCATCT AAGGGGAATC CCCCTGTATA

FIGURE 3, page 7 of 61

24851 ATCAGTCAGC CAAATGGAGC AGGACCCTGT GTTTTGTAGC TGATACAACA
24901 GGGCAGCATC TCTAGTGAGG GGGCCAGGGC TTCTATTTCC TTCATTAAAA
24951 AATGAAACAG CAGACCTGAT TCCATATTTA GAGATTACAC TTAGTTGCCA
25001 CTGTGGGTGT GCAGGCACCA ACCAAACCCA GTTGGCACC G TGTCTTTTTC
25051 TCTGCAATGA TGTATTGAAT TTAATAATGG AGGTATATGA AATTCAGAGT
25101 GATTGGAACT GAAGGTTTAG GGGCTTTGTG TAAAAATGAT ATGTAAGGGA
25151 TTTGGAAGTA GGTGAGGGAT TCTTCCCCAA TACTTATTCA ATTTTGGAGT
25201 CAAATAACCA AGCATTTTACA AATAGCCAAA AAAGAAATTG AAAGAGGGTT
25251 TAATCCAATA AATTTTCATG CCTCATATGA ACCACATCTT ATAATAAGAA
25301 TTATGCTTTT TCATTTTATA CTCAGTTAAC AAATATGATT TGTGAGCACC
25351 TGGTAAGTTC AGGGCACTAG GCTGAAAGGG GTTACCAAAT GTCTTCATTT
25401 AACAAAGTCC AGCTGAGCTC TTACAGGTAC CAGAACTGTG CCTGGGCTGT
25451 CATATGAAGA TGAATGTAAG AGTGTGTCAG GCCTTCAAGA GCTTACAGTG
25501 TGTGAGAGA GTACAAACAA GTGAGCCAAT AAAATGATAC TGCCATTTTA
25551 GAAATAGCCT GAAATTCATG GAGTTCACAG TCTTGTTAGG AAAGTGAAAC
25601 ATAAACCTAT AAGCATTAAA AAATAACTGT TGAAGACAGT AACGGAAGAA
25651 TGCAACTGGC AACTGAATGA TATAGGTTGT GATGACTGTT AAATATCATG
25701 AAAAGAGACC ATGATGAGCT GAGGCACTCC AAGAGACTTC TTTTGGGAGA
25751 TATGTTTGGG GCCAAATCTT GAAGATTAA TTGCTTTTTT CTTTTTTTTT
25801 TTTTGTAGTG GAGTCTCGCT CTGTTGCCCA GGCTGGAAGT GCAGTGGCAT
25851 GATCTCTGCT CATTTCAACC TCTGCCTCCA GGTTCAAGCG ATTCTCCTGC
25901 CTCGGCCTCC TGAGTAGCTG GGATTACAGG CGTGTGCCAC CATACCCAGC
25951 TGATTTTTGT ATTTCTAGTA GAGATGGGGT TTTGCCCTGT TGGCCAAGCT
26001 GGTCTCAAAC TCCTGACCTC AAGTGATCTA CTCGCCTTGG CCTTCCAAG
26051 TGCTGGGATT ACAGGCATGA GCACTGTGCC TGGCCTTTTT TTTTTTTTTT
26101 TTAATAAAAA AAAAAAAGT TTTCTGTAGT TTTTGTGTTT
26151 GTTTTTACTT CCATAAAAAA TCTTTGTGTC ACATGGAGGT GAATGGAAAG
26201 AGAGGCTGTG GCAACAGACG GGAGACTTTT CTGATATCAG AACCCAGTCC
26251 CATAGACCAG AATGTATGCT TTCAATCCAC GTTGTCTGGG TCCATCCTAT
26301 TGAGTGCCTC GCGCCACAG CGGGTATGG AGAAGAGTCA GACACAGCCC
26351 CAGTCTCCAC TGAGCTCACA ATCCAGTGA GAGACGGAC TCAGAAACAG
26401 ATAGAGATGA AGCCATGAGA TCAGTACTGT CCGAGGCCAT GGCCACGGTT
26451 TTGTGGGAAC CCACGAGAGG GAATGACTAA CTGTGGGGAA GAAGAGGGAG
26501 AGGACCAAAA TGCAGGGGAA GTGCTCACAG AGGATAAGTA AGCAGTGAGG
26551 TGCCATGAAA TGAGTATACA CCTGACAGCC GTGTAACAGC TCAGAGCCTG
26601 GGTAGAGGGG AATAGAGCTG CTGGTTCTCT GGGGGGAAGA GAGGGGTATG
26651 GGATTCCTGA ACAGAGCAC CAAAACAGC AGGTTATTGG AGCTGTTAGT
26701 GCTCAGATCA GCAATGGGTG CACAACCAA CCATTCTCCT AGGGATGAGT
26751 TCTTTCTGTG GATGAGGGC TTCTCAGCCT GGCTTCTCCC GAGAATTACC
26801 CGGGAAGCTT GAAAAGTACT GATGCCTGGA ACCTACCTCC AGAGAGTTGG
26851 ATTTTCATTG GTTGACGTGG GGCTGGGATA TCAGTATATT GTTTAAGCAC
26901 TCCAGGTGAT TCTGATACGT AGCTGTGATT GAGAACCCTT GCCCTAAGCT
26951 ATCCATCTGC ATCCAGGGG TGCTCCAGG CCCATCTGTT TGTAAATGGA
27001 CAGGTGTCTT GAGGTAACAA ATGTGCCAAG GCTCTGGAGC CAAGCACGCC
27051 TGCTCTCTTA GTGCTACTT AGTGACCTCA GGCAAGTTAC TAAATGGCTT
27101 AAACCTTACA AATCCTTAAT TTGTAAAATG TGGGCAATGA TAGTACCTCC
27151 TCACAGGATT ATTACGAGGT TTACACGGAA TACTCTCAGC TCATAATAAG
27201 CACTTGCACA GGCCTCATGG GCTAGGCCCT CAAAACCTAA CGCATCTACA
27251 GGCAACAGCC ATATGAAAGG AATTTTATAC CACCAAGTCA AAAAATCTGT
27301 GAGCACTGCT CAGAAGCAA AGCCTGTCTC CAACAGCGCT CATTTAAGGG
27351 GTGGGCGAGC TACAGAGAGA AGAATGAGCC CCCACAGGGT AAGCTGGGGA
27401 AAGCTGGGGA CAGAATGAGA CTCAGGAAAT CACTTGAATA TTGATTATAT
27451 TTGTGCTCAA TAATAAAATA ACGAAATGAG TACAGCCCTA GACCTAAACA
27501 TTGTGGGTGA GGCAAAGGCA ATGCGTTAAT TTTGCATCCA CTGAGGAAAA
27551 ACTCTAAAC GGTGACTTCT TTTTAAAGGG ACCAGAGAA TCTAGATTAT
27601 ATTTAGTCTA AGTCAATACA TACGACAGAA CCTTGCCCTC TAGACTTGAT
27651 AAGAAAGAAG TAAAAATAA GAAAGAATAA AAAACCCCTC CACCAAAATA
27701 CTAACATTCA GATAATGACT TTTTAGTTAG GTCTCCTGGA GAGGAGGTTT
27751 CTCAGAAAT GAATAGATTT CTCTTCTAGT GCAATCATCA AAAGGTAATG
27801 CATGGACTTA AGTGTGATCC CCAAGAGAAA ATCAATGACC TTTCTGTGTT
27851 TGCTTTTGAG AAAATCAGCC AGTCTATGGT TAAATTAGAC ATATTTTTTC
27901 TCCTTGGTCA AGATTAGTGG GACCAAGAA GCAGTCTTAC ACTCCTTCTA
27951 GCAAGAAAT ACCTGATGCC TTATTTTACA CAAATTGCA AAGTTGTATG
28001 GACGTTGTAT CTTATTTTAA GGAGAACTGG TGATCAAATG ATGACTATTT
28051 CAATAGTGGT TCATTACAC CACCACCCTC ACCCCACATC CTGCTTTCAC
28101 CTGAATCTGA ACGATCATAG TCAGTCTGAG ATTCTGAAGG TTTGAAATTC
28151 CTTTCTGAG CTTCTGCAAGA ACAGCATCTC CCAAGAGAGC TCAGGGCAGA
28201 CTGTCTGGGA GAGATTGGAA ACCTGTCTTT TGCAGTAAAC TGAATTGGTT
28251 GAATGGTCAC CCTCCATATC AGGCCTGCTT CTCCCATTTG GTTTCTGATC
28301 AGCCCAACTT GGGTCTCACC CTCTGATTT CTCTCTCCTG GCTCATATGG
28351 GGCTGCACTG GCCATTAGGT GCCAGGCTTG GCTCCGTGGA ACCCATTTGGC

FIGURE 3, page 8 of 61

28401 CAGCTGGGCT CTGTGGAGCC CTAAGGCAGG GCTCTGGTCA CTGGTGAGAG
28451 GGAGGCCATT GGAGTCACTG GGGTGGACCT ACAGACCCTA GGGTTAACAG
28501 CTAGGTGGGT GTCCTCTTCA GAGAAACGGG TTACAAAGTG AAAGAAAGTT
28551 ACACTGTGAG GTCAGCCAGG GAGGAAGACA GAGAGCTGAT ATAAGATAGG
28601 TACTGATTCC CTGGGGATGT GAAAGGAGGG TAATATTCCCT AAAATGATAG
28651 CATTTAGCTT CCAGTATACA TTAATTGATT CCTGATATTC ATTAAAACTA
28701 AACGCTATTT CCTTGATGTC TCATCCAAAG CCGCACCCTT CTTCCCACTA
28751 AGTCTGAGGG GAGCTTGTTC TGTGACAAG TGTAAGAGGT TGAAGAGGGA
28801 CCCATGAACCT CTTTTGTCTT ACTGAAGAGA TCCACAGATG GAAACAAATG
28851 CTCCTACCAC ATTTATGAAC TGCTGCTTTG CAGTCCCCTT TCTGCTATCA
28901 TGCACAGGAA CTGACTAAGC TCCAAAGCCA GAGGATGTAA ATCTCCCTGT
28951 AATAAATGTA AGTCATTTAT TAGCTACATA CACTTCAGCA AGTCACCTAA
29001 CCTGCAAAAT TCAAGCATGT GAATCTTGGA TCTTTCATGT GCTAGCTGTG
29051 AGACTTTGAG AATGTATTTT AATGTCTCTT TGCTTCTTTT TCTACCCACA
29101 CAATGGGTAT AATAATGTCT ACCATATATC TTTGCAGCAA GGTCTAAATG
29151 GGGTGATACA TGCTGAATAC ATTTCCAACA GAGTCTGTGC AATGATAAGC
29201 TCTTTCCAAA TGTTAGTTAA AGCTAACCAA CTAACCCACC AACAAACCAA
29251 CCTCTTAGCC AGGACTGATG GAAGGAGTCT GTGAGAGAA TGCATTTAAA
29301 CACTTGGCAC CATGCCCTGAC AAGAGTAAGT ACTCGATAAA TCAGTTATTG
29351 TTATTATCGC ATCGGTATTA TGACCATTAT CCTCTCTCTT ATAGGCTTCA
29401 GGTTTTCTCTG TCTTTTATC ACAGCAGTAT TCCAGCAGAA GCCTTTGATT
29451 TAACCTAAGTC TCTACTGTGT GTGTGGCTAG ATGCTATAAA GCATCCAGAG
29501 AAGTGAGAA TTTGTCCTGC TTTTAAGTAG CTTATAGTCT AATTAGGGGG
29551 AAGTAATCAG ATAGAAAGGA AACTAACAA ATGCAAAAGG AAATCATAG
29601 TTTGTGGTAA ATGCCAGGTG CTGCTGATAG TGGCTTCAGA GAGATCTCAT
29651 AGATGCTATA GGAGGTCAAA GGAGAAGCGT GCAGCTTGAG CTAAGTTTTC
29701 AGGGAAAAGG GTGAAAGAAT TAGTCATTAA TGTACACCTA CATTACCTGC
29751 CAGACTCCAT TCAAAAATAT TCTTACCAA TCATCACAAT ACCTTGTTGG
29801 TAGGTACTAT TACTATTTTA CAGAGGAGGA AAGTGAGGCA AAGACACATT
29851 AAATAATTTT CCCAGAATCC CAAGGTGTGA GGTGGAGCAA GGACACAAAT
29901 CCATGGCTCT TAGTCCCTCC TAGTATATCC TGCAAAACCA TCTGGAATTA
29951 ATGCAGAGAG GAAGGGGAGA GGCAGTGTTC TGCAGGAGTT CAGAGCCATG
30001 ATAACCCTTC TTGTGTGGCT TTTGGTAAGT TATTTTACCT CTTACCCCTCT
30051 GTTTCCTCAT CTGTTCAATG AAGGTTGTAT ATACACACAT TATATGGCCG
30101 CTGTAAGGTG GCAGTGATAT GATGCATGGG GACTCAGTTT ATGAGGCAGT
30151 GTGAATCTCG AAGGTATCAC AATGGGACAG GTGTTTTTTT CTCCACTCAT
30201 TTTCTCCGAA AGTCTTTTGT TTTGTTGCC TCCCTCTTTG GGGCATATGC
30251 TTTTCAGCTA TACCTTAATG ACATCAGAA CTGCAATTTT CTGGCAACTT
30301 TTGTGGTTAA AATTATCTCG CCTTCCATT TTAAGCACT AATAGCAAAG
30351 GTATTAGGTG CAAAATGATG ATAAAATAA TTGCAATTTT TACCATTAAA
30401 AGTCATGGCA AAACCACAAT TACTTTGGCA CCAGCTGAAT ATTTTGAAAC
30451 TCCCTACTCT GATGTTAACC AAGTTCATGA TTCAAAGAAC TTGCAGAGGG
30501 GTAGGGGAAT TTAAGGGGAA AGGGGGAGAT GCCTGGGTTT GTCACACACT
30551 CTGTCTTTCA TCCTCTATTG ACATGTTGGT TATTTGGAGA TGGTATTTCAG
30601 TTCCACTATA GCCCTCAGT CACTGTAGAC CCTCTCAAAG GGGCAATCAT
30651 GTTTCCTTTA GGTCAAGTCC ATTCATCTAA CCCCTCTCCC GGGGGCATCA
30701 CCTGTTTGTG TCCAGCAGCT GTCTGGCCAA ACTCACACCT CCTCTCACC
30751 CTCTAGCCCT TATGATCTGC TTTGGGGAGC CATGGGAACC CCTAGTTTCC
30801 TCTTTCATAC CCACTGAGAT TCACAAGTAA CTAAGGTCAA GGCAGGGCTT
30851 CATTGCCCTT CTGAGATAC CTTACGCTAC TGTTCCTCTT CGCCTGGCTG
30901 GCTCCACACT CTCAGCAGAC TTCTGCTGGG CGAGAAGCTG CAGGCCTGAA
30951 TCTCTGTGTT CTCATATGGC CCCAACTCTT GGGATTACAC TAGCTCTTGT
31001 AAGAACTCAA TGCTCTGCTC TGCTCATTTT GATGCCATCA AAGAGGGCTT
31051 GCAAGTTACC AGCTGGGAGT GAACACCAGT GTCCTCTTTT TAGAGGTACC
31101 CCTAATCTTT CTGAACAATT TTGCTGGCAC CCCTTCACTT GGCTTTGCCG
31151 GGGTAAGAGG GGGCACTTCT CTCCTTTCCC TCATGAAAGG AGGGAGAGAA
31201 GCCAAAAATC TCCCTACTAG TCAACAACCT AGGCACCCCT CTTCTCTCC
31251 TCTATTTTAT AGACTGGGAA GGGAGTGATG GTTGTGGAG GTGGCAGAGC
31301 CAGTTCAGCT GCCTTTTGTG AAGTCTTGAA GGAGGTGTCT ATCCTCAACT
31351 GCTGGCTTCT GTCCTTAAGC CTGGGGAGAA TTAAGTCTCT TTTGCCTCAG
31401 TTTGGCCTC CAATTGCCAA CATTGGGACA GCAGGAAAAG TTCCATCCAA
31451 CATCCCATTA AATATGTAAT GTGTATTAGC ACAGCGCTG GCACTGGGCA
31501 GGTATTTTCT AAGTGATAGC CAATGCGAAG CCTACTTTAT TATTTTCCCT
31551 TTTGCTTAAC CTACAAGGTG TCTAAGACCA TTTGTTTGTG CACACATAGT
31601 AAGATAAACA GCACTGAGAC TGTGGTCTT TCTGCCCTGT GTCCTTATCC
31651 CCCTGGGAA TCTGGAAAGC CAAGCCTAGA CACACTCGTT CCACAAATGT
31701 TTACTGAAGC TTGTTCTAT TCAAGCACTG TACAGCTACA AAGACCATCT
31751 TTTCTGAAC CCAAACCAGG CCACATGGTT GGAATAACTT CAAGTATGGA
31801 GACCAAGAGA AAAGGTGGTT GTTGTGAGCA AAGCTCTGAG TCCACACCTT
31851 CCAGGAACCT ATAGTTGATG CAATGGTGGG AGAAGTCTGA ACCTGGATTG
31901 AATCTGCTTG ATTCCGATGA ATGGTGCAGT AGGCAGAGCC ATGAGTTCAG

FIGURE 3, page 9 of 61

31951 AGCAGGAAGA AACCACTGGT TCAAAGAAGC ATCTGTCA CA TCGAAGCTGC
32001 TTTATAGTCT GTTGGGAAGC ATGCATAATA ATTTATTCTT TCTTTCTTTC
32051 CTTTGGGTCAA CAAAGATTTC TTGAGTCCCT ACTATGTGCC AGGTACTCTT
32101 CTAGGTACTG AAGATGCAGC AGTGAACAAA GAAGATACAA TCCCTGCCCCA
32151 GCGGAGCTTA CATCTAGTTC ATCGAAAGTC CCTTCTCTAG TGGCTGCTCT
32201 CTTTATTGGA GAAACCATGG GCTGTTCTCC TCCCATCCTA GGGCTGCTGG
32251 CTCCACAGAG GCAACACAGTC CATCAGGATG CTCTGCCAGC CACCACCCCA
32301 CTAAGACCA AGGGTTACGC TGTCAGTGTG AGCAGGGACA CTCCCGTCTC
32351 TGCTACCTCC TTTCTCCTGA AAACAAGATC TCAGGGAACA TCTGCCATCC
32401 ATTTTCCCTC CCTGGGGAGT GACAGGAAAG GTGTATGGAG GAGATTGAGC
32451 GGAGTGATGG ATTGAGGCAC TGTGAAAGTG AATCATTGCC TGACATGGGA
32501 ATGAGGAGAC TTGCTTAAAG GACAAGCCAT GCTAAGTCAT CCATCGTTCT
32551 CCCCTAAGGA GGTGAATTGA AGTTCCCAT TTTCCAGGG AGCCAAATTA
32601 ACAAGGTGCT GGGAGATTTC CAAATTAGAA AAAAAAAAAA AAAAAGGCAC
32651 CACCAGAGT CCAATCAGAG AGGCTGTTGA GTTGTTTTTT GGAGCAGATC
32701 ATTGTATTG GCATCTAACC TTGAAATAGA GGAGAAAGCA TGGAATTTCT
32751 GCTGAAAAC CATCCTTCTC TGAGCAGGTG GTACAAATAA GCATCGTTGT
32801 GTTCTCAGAG GCAGGAACCA CATTTCGACC TTGATACCAA CTACCTCAAT
32851 TGCTAGCTCT CTGAATTTC ACAAATTGCG AATTAGGAAA TTGTTGCTCA
32901 TTTTACAATT TGGTTTCCCT CAGGATTCCCT TTTAAGTAGC CAGCTACCCC
32951 AGTACTTTTG AAATATGACT TGCTTATAAA AATTTGATAG GCTTGGCAGC
33001 GTGGCTCACA CCTGTAATCC CAGCACTTTG GGAGGCCGAT GTGGGGTGGGA
33051 TCACAGGTC CAGAGTTCAA AGGAGTTCAA GACCACATG GTGAAACCCCT GTCCCTACTA
33101 AAAATACAAA AACTAGCCAG GCATGGTGGC ACATGCCTGT AATTCCAGCT
33151 GCTCGGGAGG CCAGGCAGCT AGGCAGGAGA ATCACTTGAA CCCAGGAGAT
33201 GGAGGTTGCA GTGAGCCAAG ATCATGCCAC TGCACTCCAT CCTGGGTGAC
33251 AGAGCAAGAC TTCACTCAA AAAAAAAAAA AAGATATATA AACAAGTTTT
33301 TATAATATTC TCAATATGAA CTAGTAGAAA AAAAGCATGT GTTTTtaggt
33351 CTTAGAGGCC TGTTTCCAG TTTTATCTCT GACTCTAATG AGGTATAGTA
33401 TTACCTACAT TGATTAGCCC TTCTATACTT CATAGGAGAT GCTCCAAGAC
33451 TGCTAGCTTT CTTCATTCAA TAAAGAGAGA TATAACAGGA TGGGCCTTAA
33501 AAGTAGCATG CATTTCTTCT TTCATTCACT CATTCAAAAT ATTTTCATGC
33551 GTGAAAATGC CAAGGATGTT TGGTCAACCA ACTCTTCCCA GACCCCTGGCT
33601 GTGAGCCTGG CTTAGAACAA TTCCATTTTA ATGGTCCATG CCCTCAGGCA
33651 CTTGTATTCT AGTAGAAGAG CAAGGTAAGA AAACAGCTTA AAAAGTTAAA
33701 CAGTTTTAGG TTGAGATGGG TGTGTGTGAGA AAAATAAGCA GGATGCTTTG
33751 AACCTATGCA GGTAGGAAGG TCTGGAAGAG CCTCTCTGAT ATGGTGATGG
33801 TTAAGCAAA ACCAAAAAGA CCAAGAACAC ATGGAACACA TGAAGGGCTG
33851 GAAGAACAGT GTTTTATGGG GAAGGACTAG TACACACAAA GGCTGCAAAAG
33901 GCGAGTGGGC TCATTATGTT CTAGAACATG CAAAAAGCG GGTGCAGCTG
33951 GAGAGGGAGT AAGATGGCAC AAAAGGTGAG TGAGGTGGAC AGGAGCCTTA
34001 TCACGCAGGC TTACACAGGC TCTCAGAAGC CCTGCGTGTG GGTTCCTTGG
34051 GACTACCGTA ACAAAGCTCC ACATACTGGG TGGCGTAAAA CAACAAAAAT
34101 GTATTGCCTC ACAGTCTCTG AGGCCAGAAT TCCAAATCG GGTGCTGGCA
34151 GGGCTGCGCT CCCTCCAAAA CCTGTAGAGG AGAATCCTTC CTGCTCTGTC
34201 CCTAGCTTCC AGTGGGTTGC TAGCAATCCT GGGCTGGGTG ACTCCAGCTC
34251 TGCCTTGGTT GTCACAGGGC GTTGTCTTTG TGTGTCTCTG ACTTCACATA
34301 GCCCTCTTCT TCTTCTTTTT GTGTGTGTCT GTGTGTGTCC ACTCTGAGGC
34351 ACAGAAGTTT TTATTTATTT ATTTATTCAT TTATTTATTT CATTGATAAA
34401 CATAATAGTT ATGCATAGTT TTGGGGTACA TGAGATATTG GATACATGTG
34451 TACAGTGTGT GATAATCAAA TCAGGGTGAT TGGAAATATCC ATTCACCTCC
34501 AAACATTTTC TCATTTCTTT GATTGGGGAC ATTATAATTC TTCTAGCTAT
34551 TTTGAAATAT ACAATAGATT ATTGTTTACT ATAATTTCCC TGCTGTACTA
34601 TCGAATACTA GAACCTTATTC CTTCTGTTGA GGGGTGACTT TTGCACCCAT
34651 TAACCAACTT TTCTTTATGT CCTCCTTCCC ACTTCCCTTA CCAGCCTCTG
34701 GTAACCACCA ATCTACTCTC TACCACCATG AAATCAACTT TTTTTTTTTA
34751 TAGCTCTCAT ATATGAGTGA GACTATGCAG TGTGTGTCTT CTGTGCCTGG
34801 CTTATTTTAC TCAACATAAT GACCTCCAGT TCTGTCCATG CTGCTGCAAA
34851 TGACAGGATC TTATTTATTT TTTTATGGCT AAATGGTATT CCATTTTGTA
34901 TGTATATCAT ATCTTCTTTA TCCATTCATC CACTGATGCA TATTTAGGTT
34951 GATTCCATAT CTTGGCTATT GTGAATAGTG CTCCAATAAC CATGGAAGTG
35001 AAAAATATCT TTCAACATAC TGATTTCCTT TCTTTTGGAT ATATACCAG
35051 TGGTAGGATT GCTAGATCAT ATGGCAGTTC TAACCTTTAGA TTTTAAAGGA
35101 ACCTCCATCA TTTTTCCTCA TGGTGGCTGT ATTACTTACA TTCCACCAA
35151 CAGCATATGG TCATCTCCTT TCTCCACATC CTTGCCAGAA TTTGTTATAT
35201 TTTGTCTTTT TGATAATAGC CATTCTGACT GGGGTAAGAT GATATATCAC
35251 TGTAGTTTTG ATTTGCATTT CCCTTATAAT TAGTGATGTT GAGCATTTTT
35301 TTATATACCT GTTGGCCATT TATATGTCTT CTTTGTAGAA ATGTCTATTC
35351 AGGTCTCTG CCCATTTTTA AGTGGAATTAT TTGTTTTTTT GCTACTGAGT
35401 TCTTCCAGTT TCTTATATAT TCTGATACAC AGCCATCTTC TTATGAGGAC
35451 TCCAGTTATA TACGATTAGA GAGGTCCACC CTTTTTCAGA ATGAAATTAT

FIGURE 3, page 10 of 61

35501 AGCTTAACTA ATTACATCTG TAGTAACTCT ATTTCCAAGT AAGGTCACAT
35551 TCTGAGGTAC AAGGGTTTAG GACTTCAACA TATGAATTCC AGTGGGACAC
35601 AGCTCAACAC ATGACACCAT GGTAGGGAAC TTTATTCTAC TTGCAAGTTC
35651 TGAGTGTCTT ACGCAGGTAG ATGGACTGGT GTGATGTATG CTTTAAAGAC
35701 CGCTGTGTGA AGATGGCCTT AGGGTGATGA GGATGGAAGT TGGAGACTAA
35751 TAAAGGACTA AGAAAATGCT AAGAAAATCC AGGTGAGAGG TGATGATGGC
35801 AGAACTAAGG TGATAGCAGT AGAGAGAAGA GAAGTGGATG GAGATTAGAC
35851 ATCTTTTGCA GAACGAATGA CAAAATACCC CTATGGATTG GACATGGGAT
35901 GAGGAAAAGG AAGGACTTGA GGGTGGTGTC TAGGCTTTTT ACTTTAATCG
35951 TGAAGGGAAG CTGGTGCCAT TTACCTTGTT CGGACAAACC TGGAGAGGAT
36001 CAGGTTAGGG ACTGCGAGTG GTATGGACGG CAAAGGAATG GGAAGAATGC
36051 AGGGATTAAA AATTGGAAAT CCCCTCCCC AGTCAACAAT ATCTTACTTT
36101 TATCTGAAAA ATACTAAGTA AAAAAGCATC CTTTGTGTTG AAAGCTCAAT
36151 CCTTGTGTTA ATGAAGACAT CTCTGGGAGA GGAACATAG TGAGCACCTT
36201 TCCCAAAAGC AGCCACTGAT TTGGAGATGA GACAGAGTAG CATACAGGAC
36251 ATCAGAGAGA ACATGCTCAG GACAGAAAGA GCAATGTAGG ACAAGGCAGT
36301 GTCTTGGCAT CACAGTCTTT CCTCCGACTG GCTGTGAGCA AGTGCTCAAT
36351 TTAATTCAT CTGAGTGTG GGTGAGGACA AGTGCCCAA AGCAAATTGA
36401 CAAAGTAGG AGCATGATGG AGTTAGAAGG TAGCAAGTTC CCTCCACAGA
36451 GCCCAGCTGG AAAGGAAGAT AGAGGGGAAG TTGACCCCTG GGGATGGGGA
36501 ATAGGGTGAG AGGAGAACAT GAAACTGAGA AAAGGGCTTT GAGTGAAATC
36551 TAGGCTAAAA GCTAAGGTTT CTTAGAAAC CCACCATTGA CCCAACATGA
36601 CCAGGGCTTT CTCTTGACTT GATTATTTT GATACCCCAT CTTCTCTGT
36651 ATTCCTGGAA CTAGCTCTCC CAAGCCCAG AATTGTGCTT CTATCAGAGC
36701 TGGGTTTTCA TCAGAGTCTC CCCTTTATCC TGTATCTCTG TTGCCCTATT
36751 TTGTTTGAAT TCCTGCCAGG TCAGCTGAAT TTGGGCATT GGGGTGAAAA
36801 ACCATCAAGT TTGGCATCCT GGCTTTGGCA CCTGGCACAG TGTGACCCCA
36851 CTGGTCTCTC CCTCACATTT GCTGTGGTCC GTGCACGGAA TTTGTCAAAA
36901 GACCTCTCTA GTATCAGCTT TCCTGCAGCC TCAATGCACC TTGTCTGAA
36951 TAGGATATTA CCCCCAAGA GTATATTAGG GCATTTTCCT ATGCCAGAAG
37001 GGGTCTTAG GCCTCTTGCA GTTTTTCTG GGTGACAGTG AAGGAGGAGG
37051 TGGCTGCAGA GCTTACTGCC TGTGGACTGA CCACCCAGG GCCTGGTGTC
37101 AGGACCATT GTCCAGCCTG TTGAGTGAAG GTCATTCTGC CTAAACTGTA
37151 AGCACAAGAG AGAGTTCAGC ATCATTTGCA TCCTATTTTA TTGTCTTTCT
37201 TCTCTTTCTT GTCAAGGCCT CATTTTTTTT GGCTTGAACA AATGGTAAAG
37251 GCCATTTTAT TACAGGTACC AAGCCAACT TTCCTTGGTT TTGTGGCCAT
37301 CCTGCTGGGG AAGGAAGTAC TCCTTTACTT TAAATAACTT TAAAAACATC
37351 TGTTTGGTCT CAGGGGCTGC AGCTGGAAG ATTTTCTAAC TAATACTTGT
37401 TTTATGGGGG TGTTTTGGG GGGGTTTATT GAGTGTCAAA CCTGGCAGTA
37451 AATTAGAATC AGAAGACAAC AGTTAGTGAT AAGCAGAGAA GCCAAGGATG
37501 TTACCATAGG CAGGCAGCAG AGAGAGGGGA ATGGTGGCT GGCCCCCAA
37551 AAACAGATTT GAAGATCTCC TTCTGTCTAT TAGTGAATCC CCAAGTGCCT
37601 AAGGTGGGCT GTGATTACTT GAGCTCCTGT CTCCACTGTC TCAGCTCACT
37651 TGCCCTGGGG TGGACACACA ACACACATTT GCTCATAGCA TCAGGTATTC
37701 AGGAGCAAAG AGCTGAATTT ATCTGGTTAA TTTAGATACC CCTACCCCT
37751 CTTTTAACAC CAGATTGCCA GGATCATGAC CTCAAAAGG TACCCTGAAA
37801 TGCAATTGTC AATAGGGATG AAAGATTTC CGTTTCATCC ACATTTGCCT
37851 CCTGAGCTAC TTACAGCAGC AGGTCACCGC AGCCAGAGCC CACCTGCTTG
37901 CCCACCATGC CCGCACACAG ACAATGCTGC TTCTGTGGCT GGAGGTCGGA
37951 ACACCTCAGC ACTATCTCAG TTTGGCTGCA GATCCTCTGT GTGCTTGGTA
38001 AACAGGTTTC CTCATCTGTA AAATGAATTG GCTCTTCAC AACTTTTTTA
38051 AAAGCACTAA CATATTAGGA CTCTCACTAA ATACTCAAAT GCTAAACTCA
38101 AATACTAAAA GAGTGCAAAG GGATGGGCTC CCAAATATTA CAGTGAAGGC
38151 TGCAGCATTT TCTGACCTTG CTGCTTTTTC TGGTGAGTGG CTTTTATTTC
38201 TTAGTTTGGT TTCTTCTCTC CCATTCTAAT CAAGCAAGAA GTGACCACCA
38251 AAAGGGGCAC TCACCAAACC AGAACAAGCT AGTTCTTTCA TCTTTAATTC
38301 ATTGCAACCA AACAGATGCC ACAGAAAGAG CCAAGGGCTC CAGGCTTAG
38351 CTCGACGCTT GCCATTAACT ACATATGTAA GTCAGCCATG CTGGTCTGCA
38401 GGTCTTGTCT TTGCATGATC AAGGGACAAC TTGGAAGGTC TCCAATCACT
38451 CTATTCCCCC AGATGGAAT GTATTCACTT ATTTCTGGA GATGTCTGTC
38501 CTCCTCCCAG TTAAAGACAG ACCTTGACCC ACCTCCACTT CCTTCTCTGT
38551 GGCCCTGTCT TATCTGTCTT CTGTCTCTTG CCTCTCAAT TGTCTCTCA
38601 CCGTGTGTTG CACTTCTGAG CTATCACTGT GATCCCCCTG ATGTCTTTTC
38651 TAATGTCCCT GAACTTCAAC CTGATTTTCA CGCATATACA ATGTCTTCTT
38701 AAACACTTAT AGACTCTGAC ACATTTCTGTA ACTGACACAT TTCCCTTTAT
38751 CAAATGCAAT CTAAGAAGCT CACAGTTTCT CTCAGTTTCA ACAAGAGAAA
38801 TCAGGAGCAC TTGAATTATA CAACTTGACA TTATTAGGCG TGATGTCTGA
38851 TTTTGTCTCT TCTGCCCCTG TCATTTCTGT ACTACCTTTT ACAAAACCTC
38901 TCCTATGACC TGTGTCTCTC TCCAGCTCCA TTTGAGAACA CCTGCTGTAT
38951 ACCCTGTGGG CTAGCTTTTA TTATGTTTCG CTCATGATG AAGAAACAGG
39001 CTTGGAAGTT AAATTATCTA CCCCAGGCC ACAGCTTGGG ACCTAGGATT

FIGURE 3, page 11 of 61

bioRxiv preprint doi: <https://doi.org/10.1101/000000>; this version posted January 1, 2014. The copyright holder for this preprint (which was not certified by peer review) is the author/funder, who has granted bioRxiv a license to display the preprint in perpetuity. It is made available under aCC-BY-NC-ND 4.0 International license.

39051 CCAACCAAC CTTGTCTGAT TCTAAAGCAT AGCAGAGGCT CCATACTCTG
39101 CCTCCCTCTT CTACATCATT TCAGTTTCTT CACTTTCCCA CCTCCAATTC
39151 TCACCCAAAC TGAATGTCTC ACAGTCTCTG TGCCCCACT TTGCTCCATC
39201 CCTTGGCCTT CTGCAGTCCA AGCTCCATTC TGAGATCATC CAAGGCTTCT
39251 CTTCTGTGTT GATCCTTGGC CTTCTTGGAG TCTCTTCTC CCATGTTCTC
39301 CACAACAGAG CATCTCTCTG ACTGTTTCA TTCTGCATCT CACTCTTTCA
39351 TCAGTATCTT TTTCTCTACC ATGCCCCATA AATTGGGTG CTCCTGAGGG
39401 TCCTGTCTT GTCCCTGCT TTCTTGTGT ACAACCTCCT TGATCTACTT
39451 CATCTACTCA AGTTTGGTCC ACAATTTCTA TATTGTGAAG ATTCAAATCT
39501 GCATCTCTAG CCATATATCC ATTTGCCTGC TAGGCATTTT TACCTGAATA
39551 TTTTATAGGC ATGCCAGTGG CTCTTACTCT ATGGCTCTTA CTCTAAGTCT
39601 AGACTACAGC AGAAAGCAAT GCTCTTTTAA TTAAGGCATA GTGCCTCTTT
39651 CAGAATAAAT TACAGCATAA AACCAGGCCCT GCTGTGCAGC ATTACAATTT
39701 GTCATTAATA CTCCATTCTT CTTGCCAGAG TAAATGAGCC ATTACAGCC
39751 AGGGCGCCAA GATGGACTGT TGTATATTTT TCTGCCTTTG TATTATGAGT
39801 ATTCATGGCT CTCCTCAGAC AAGCTCCTGG GGATTTCCAG TGGAGTTGCC
39851 TTAACATGCA GGTCAATTAG CCAGGCTCAA GGGTAGTTTC CTGGATATTG
39901 GTATCCCCCT TGCAGAGGAC TGCAGGAAAG CTGAACAGT TTCCCCAAT
39951 GTGGGTGGTG ATCTGAGAA ATATCATTTG TATCTGCATG TGCTGTCTCA
40001 CACACACTAG CTCACATGTG CACACACACG TGCATGCACA GGACAAAACC
40051 AAACACAGGG CAACCCAGCA TCTGCCCCC AGCCATCAGC ATTGTTACAC
40101 CTTTATAGGG GCGGGAACA GGTGGTCAG CAGGTGAACG TCAGGTGAGT
40151 TGAGAAAAGT TATTAAATCT TAAATCCTTA AGGAAAGTTA TTAATCTCT
40201 TCTAAATGTC ATGCATAGGC GGGCTCAGTA ACTAACATGC AAATGTTTAG
40251 GGTCTGAAGC TCCTACCGAT AATCTTTTCA ATCTCAGAAT TCCAGCCCCT
40301 TGTGCTGTTT TGGGTGTCT GACACAGACG AAGCAGAGAA CAGTAGAATA
40351 AACAGCTCAG TAAACAATTC ATTGAGGGA AGAGAGTGAG AAGATTTACT
40401 GGACAGCTAG AGGAGGAAAT ACTGCTGGTG ACTATGGAAG AAATTTGCC
40451 TAAGGCTGCG AGGCAATAGC TTGCTCTTAT TTATCTGGT GTCCACCCT
40501 CTCCTCCAAC ACATACTGCC CTGGCAGGTA CGTAGAAGAT GCGTGAAAT
40551 ATCTTTTGAA TTGAGCTATG CAAAAAATAC TGGATTCTGC CCTCCAAGAG
40601 TTTACTGTTT AGTTTCACAG AAAGCACATG CCTCCTTTC TCTGCCTCTT
40651 GAAGACTGAC CTATCTTTCA AGGCCACTGG CCAATTTCTG TTTCTAAGT
40701 AAGACCACTG AGTCAGTGGT GACCTCTCCT TCTCCCTAAC AAAGTCTGAT
40751 TTACTTGAAT ATCAACTAT CTCCCTCTTG GCCTGTGAAT TTCTTGTGTT
40801 AGGGAACATA TCTGATTTAT CCTATCTCT TCCACAGTAC CTGGTGATAA
40851 ATGCCCAATA AATGCATTGA AATATTCATG AAGCTTACTA AATGCTCTGC
40901 CTTATGAGCC ATGAATATA AAGTGCCCTA AACTTTGTTT TTCTCTTATG
40951 TAAATAAGG ATAATAATAA TGACACCCCT ATAGGATTGC TGCAAGGATT
41001 AAGTGTGATA ATATATATAA AACTCTTAGC ACAAACACCT GGCTCACAGG
41051 AATAGTAGCT ACTACCATAA TGGTAACCTC GAGGGCAAGT TTTCTCAGAG
41101 TTTATTTAGC CTCTTCACC CTGTGTCCAG GAGTGCAGAT CAGAATGGTC
41151 AGATTCAGG ACACCAAGT TTCTGTGGGA GCTTCCCTAG GAATATAACT
41201 AAGGAATTTA AATCAGGTT AGCTCATGCT GTTACACTCT CTCTCTCCAC
41251 TCAGGCATTG GGTGTGGCTT TTCCAAGCTT GAGAAGGGTG TGATCTGAGA
41301 TGGGCTTGGG TATAGAGGGG AATTATATTT AGGTCTACCC TGTATAGGAA
41351 AAAGTGCCCT CCCAAAGTCT CCCTGGCCTA AAGTATAAGA GATATGTGTT
41401 GGGATTTTGA CCCAGAGCCC AAGCCAATAA TGGGACCCCC TTCTCACATG
41451 TGGCTACCTC CTGCTATCAC CACAACAGCT ATCATACCCA TAACTACAAC
41501 AGAGGCCAAT TAACGTGGTG ATAATTGACA AATGTCAAGA CATCCTACAT
41551 TGAGGCACAC TGTGCGTTT GCGTGAGCTT TTAAATTGGT AGGGAAGGAA
41601 AACTTTTATA CCTACACCTA TCATGGAAGG CAGAAGGTAA GAGCTAAAT
41651 AAAGGTATGC CAAGAACAAA GGCAGGAAAG AAGGGTTTAA ACAACTTGAG
41701 GCCTGATCCA TTGATTAGTG AAGAGGAAAC ATGTTCAAAA ACCACTCTAT
41751 AACCACCTTC TCCAAGTTT TTATAATTTT GCTTCTTCGG ATATCTTCTC
41801 ATCATAGTCT TAAATGCCAT CAAATTAACT GAAAAATGCT AAAAATGCAA
41851 CCACTCTAAG AGAATGGGT AGATGGGAGA TGGCTTTGTT AAAGAAGTCG
41901 GTCTTAAAGC AAAAGTAGGG CTTTGTCTATG GTAGTATGGA AGGAAGGACA
41951 TTTTGGTCA AGAGAAGAAA GTGCAGGGCC TGTTGAGGAA GGAATGAGTA
42001 GTAAAATATG GCTAGAACAG GGTGCAGAGG GGAAGAACTT CAGAGAATGA
42051 CCAAATAAAC AGGCTGAAAG GTGTAGACAT TATAGGCAAT AAAGCAACCA
42101 CAGAGGTTTC TAAGCCATAG GGTGACATGA TAGATCTGTA TTCTAGAAAA
42151 GTTAGTTTTG CAGCAGTTGT GTCCATTGAA AGGGACAGGA TAAGGGAGAT
42201 AGATAAGAAG ACATGCTATG ATGATAACTA GATTTGGATA CCAAGTGGTA
42251 TGGTGGAAG GAATGAGAGA ACAGGGTCAC AGATGAATGA CTGCCAATT
42301 TCAATCCATC ATAACAGGAT GTATAGGATT GCCCTTAAGT AAGATGGGGA
42351 ATCCAAAAAC GAGGAACAAG TTGTAAGGT TTTGGGGGCC AATGATGAAT
42401 TCCATTTGGG ACATGTTGCT TTGGATATAC CAATGGGACA TTCATGTGAA
42451 AATGATCTCG GCAATCCTAT CCTGGAATTC AGGATAGGAT CAGAATGAGG
42501 GACACAGTTT ATAAGGTAAA CAGAATGGAG GTGATATAGA AGATAAGGGC
42551 ATAGATGAGC TTACCAAGG GGAGAGTTTA GAATGAAAAG AAAAGACCAA

FIGURE 3, page 12 of 61

42601 AGGCTAAGCC TGTGCTATTC TTTCTCCTCA CAATACGCTT CAGACCTGGG
42651 CACAAACCAT CAGTGAGTGT CATGATAACA CTACTGTGGG CAAATCCCCC
42701 CTCTATAAGG GCCTGATTTC CTCCTCTATA AAATAGAGGG TTGAACAGGG
42751 TGGTCCATAT CCTGTTAATT GTGTTTGGAG AGCACACAAC AAACCAGCTA
42801 CTATCCAAAG GGGACATCCC GAGGCAGGAC TAAGCAAAGG AAATCCAGCA
42851 CAGGGAAAAC ACTTTCTGGT GCTGGTCCCA GTTAGGCAGC GTTCAGTTTA
42901 ACCCATCACC ATCACCATCA GTAGCTTTCA GCTGCTACTG ACCACACTTA
42951 TAGGAAGAAA AACAAATTAGA ATGGAGAGCT AACTCTTTGG AAATGGTCAA
43001 AGAACACGGG TCTACAAAAC CGTCAATAAA GCGCTAAGAT GCCTGGGCGG
43051 GGTCAAAAAG TCTACCTGGG CGGGGTCAAA AAGTCTACCT GCTCAGCATA
43101 TGGGGGCCAG ACATCTGACC TTTACCAACT CCACAATAAC CACTTCATCT
43151 ATGGATCCAG TCTTGGTATC ACCTAGTCGC TGTTTTCAAG TAACAGAATA
43201 TTTGGTTCTC AATGGTAGGT GACTGGAATA CAGCTTACTT TCTCCCACCC
43251 CTACCGCCAA TCCTTTCTGC CCCCTTAG TTTAATTTGC TTGTAAATTA
43301 CTTGGGAATA CATTGGGAG CCATTATAGG GAAATAGAAG GCAGACATGA
43351 TGAACAGAAT GCAGGTGTT TTTTATTACT TCACATTGTG CTCACAATF
43401 AGGAGGAATT CTAGAAGCCC CTCCAGTGG CCAGGAATTG GTCATAGCAT
43451 GAATAAACTC AATATAGGTT GAGTATTCCT TACCCAAAAT GCTTGATACC
43501 AGAAGTGTTT TTGGATTTTG GATTTTTTTT TTGAATATTT GCATTATATA
43551 CTTACCAGTT CAGCATCCCT AATCCAAAAC TGAAATCTAA ACTGCTCCAA
43601 TGAACATTTT CTTTGAGTGT CATATTGGCA CTCAAAAGGT TCCAATTTTG
43651 GAGCATTTTC AATTTTGGGT TTTGGGATTA GGGATACTCA ACCAGTGGTA
43701 GGTTTGGGAT ATATCAGCA TGCTAAGGTC AAAGAGACCT AGCTGGGAAG
43751 GGTGGGAGGA ACATGGAATT TTCATTCTCT GGGCACCCCT TGAACAGTCT
43801 TACTATTAGG GCCCCAAAT TGTTCTAAGT GTGTGTGTGT GTGTGTGTGT
43851 GTGTGTGAGA GAGAGAGAGA GAGAGAGAGA GAATTTTCTT TCTTCCTTTA
43901 TATTCFAAGT TCCTCAGGAC AAAATTTTGG GTTTCTTTGT ATTCTCCCTG
43951 CAGCTCCTCA TGTAATTCTA AGCAAATAAA GGAATTCATT AGGTCCTTGA
44001 TTTCAAGAGC CTCCAGTTC TCATGTAGG AGGAATCTTA GGGTGGCAAG
44051 ATAAGTTGAG GGACTTTTCT TCAAGCACAT TTCACAAGTA AGAGAAAATG
44101 TTGACTGTGT ATATCTAAGA ATGGGTGGGG CTCATGATG CCCCCCTAAG
44151 TTAATCTTTA CTATTATTGA TTGATTGATT GATTGATTGA AGAAGCAATG
44201 TTTTGATTGA TTGAAGAAGT AATGTTTCCA ATGGGTACAG CAGACTGGAG
44251 CAAAAGAACA AAATGAAAGA AAATACATTA GGCTTTCCAT TTCTTCTAAT
44301 TCTGGGGCAT CTGATGAAGC TTTGGATCCC CCAAGGTAAG AGCTGGACTC
44351 TGCTGGTGAA AACTCTTTAG GAAAAACAAA AGAATATTGT CAGAATCTGA
44401 TGCACCTTAG AAATGATGCA GCAGAACTGC TTTATTTTCT AAAAGGTGAA
44451 ATGGAGACCC AGAGAAGCAA AGTGATTTGT TCATGATCAT ACAGCTATTC
44501 AGTAAAGGCA AGACTTCTGT GATCCACTGT CCTTTCTTAA AACCAAGTGT
44551 TCTCAACCTT GGGAGCTTTA AAAAAGTGT AGTGTTGGAT CCATCTCAGA
44601 CTAATTAAT CAGAACCCAT GGGGATGAGG CCCAGACATG AGTGGGTTTT
44651 TTGTTCTTTT TTAATAAAAA GCTCCCTAGG AGATTTCTCA AAGAACTGAA
44701 AATAGAAGCA GGTATGATC CAGCAATCCC ACTTTTGGGT ATCTACCCAA
44751 AGGAAGATAA ATTATTATAT AAAAAAGATA CCTGCACTCA AATATTTATT
44801 GCAACACTAT CCACAGTAGC AAAAATATGG AATCAACCTA ACTGTCCATC
44851 CATGGATGAC TGGATAAAGA AAATGTGTAT ATATACACAC ACAATGGAAT
44901 ACTATTTCAT CGTAAAAAAG AACAAAGTCT GTCTTTTGCA GCAATATGGA
44951 AGGAACCTGA AGCCATTCTC TTAAGTGAAG CAACTCAGAA ACAGAAAGGC
45001 AAATCCACCA TGTTCTCACT TACAATTGGG AGCTAAATAA TGCATATGCA
45051 TGGGCACAGA GTGTGGAATA ATAGACATTG GAGACTCGGA AGGGTGGGGG
45101 GAATGGGAGA GGGTCAATGA TGAAAAATTA CTTAATGAGT ACAACGTACA
45151 TTAATTTGGGT GATGAATACA CTAAAAGCCC ACACCTTTACC ACTATGCAAT
45201 ATGGCCATGT AACAAAATTG CCCTTACACC CCTTAAATTT ATACAAATAA
45251 AAATAAATAA ATAAAAGCTC CTTAGGGCTG AGAACTACTG CTCCTGTCCT
45301 ATGGGTCCCC AGCTTTATTT TAACCTCAAA TGAGTTTAGA AAAATTTATG
45351 AACCATTTTA AAAATATTTA TTGAGTATCT CCTGTGTGCA AGGCACTGTG
45401 TTATGTTAAG TGGCTGAAGG GAAATTAGAC TGGGGAAAAA GACAAGGTCA
45451 TGGCCTAGGT TTCAAATAA TATAAAAGAC ATAACAAATA AGAAAGGATG
45501 CCACCTTCTT CCAACCCTCA TCCCTCTTCC TTTTGACAGT TGCAGATGTT
45551 GCTAATTCAT TTTGGCACCC TTTTCTCTG ACCCAAATAT AGTCTTATAA
45601 ACCTTTTCAA CCCACGGCTC TAGGCAAGTA TCACCTTTTG CTCTTTTGGC
45651 ACCAGATCTC TTGAACACTA TTTACTGGTT TTGGAAAGAT TATACATGTA
45701 TGCTGGAGT TGAATGACTG AACAGAGCAA TAATAAGAGT TAAAGCAAGA
45751 AAGACAGGCC TACAGGAGAT GGCAGAGGGT CTTGCCTGTC AGGCATTGAT
45801 TTTGAAC TTCATGATAGG CAATCAAGAA CTATTGAAGT TTTTGACAAA
45851 AAGACTATAG ATGAGATTAA CCTGGTTACC GTAAAGGACA AAGTGATTGC
45901 AGGTAGAATG AGGCCAGCTT CATAAATGAA TCATCAGGAT ATGAGAAGCA
45951 AGGGCTTGAA CATGAGAGGC CATAGTGGGA ATGGAGGGAA AGGGACAATG
46001 TGAGAAGCAG TGAAGGAGAA GGGCTGATTG AGTAAAGCAG TGGAGAAGAC
46051 AGTGAAAGAT GTCAGATGAC TACCATGTTT GGCAGACTGAG TGAGGGAAGA
46101 GGTGTTGATG ATATTACTGA AGAGAGAGGC AAGGGGTGGT CACTGGATTT

FIGURE 3, page 13 of 61

46151 AGAGCAGACA TTATCAACTT GTGGTGTCCA GACATTTAC CCTGGGAGAA
46201 ACCTGTTCTG AAGTGGCTTC AGCATCTCTG AGGTCAGATT CCTAGTTCTA
46251 CTATTTTCT ACTGACTGAA ATGAAATCG AGTAGGCAAG GCTTTTGATT
46301 TGCTCTAGTG GTCTCTCTG TAAATGGGG GTGTTTATAT CCATAGTCTT
46351 ATCACAGGGC TATTGGGGG ATTAAGTAAG ACAAGTGTGG CAGAGCTTTG
46401 TAAACTGTAA TACACTGTGT ACAATTGGAT AATTATGGAT TCTTCTGACT
46451 CATCCACATG GATGTCTGCT GACCTGGGG GACCGGAGCC TGGGAGGGAG
46501 GCCAGACCTG GAAATGGAAA CTGAAATG TTCTCTGTAG AAAAGATAAT
46551 TAACATTGGA GGATGGTTAA GTCCTCTTAA ATAGATGTCA GAAAAATGG
46601 AGGTCATGTA GACAGAATGT TGGATAACAC TACTTTGTAA AATATTTTAT
46651 CTTATTTCCA TTATAAAAGA AAAAAGCTG GGCTGGGCAC GGTGGCTCAC
46701 GCCTGTAATC CCAGCACTTT GGGAGACTGA GCGGGGTGGA TTACCTGAGG
46751 TCGGGAGTTC AAGACCAGCC TGGCCAACGT GGTGAAACCC TGCTCTACT
46801 GAAATGTAAA AAATTAGCCG GGTGTGGTGA CAGGTGCTG TAATCCTAGC
46851 TACTCGGGAG GCTGAGGCCG GAGAATTGCT TGAACCCAGG AGGTGGAGGT
46901 TGCAGTGAGC CAAGATTGCA CCATTGCACT CCAGCCTGGG CGACAAGAGT
46951 GAAACTCCAT CTCAGAAAAA AAAAAAAT AGACAGGAAA ATAAAAAAG
47001 CCACCTGACA TAGTCTACTA CCACCAACA CATCATTAAC ATTATATTTT
47051 TTTATTTCCAT GCTCTTTGTT TTTAATATAA ACAATTACTT TTAAGGAAAA
47101 ATGAGAAAAA GAGAGAGTGA TAAGACTTTA TTTTAAAGG TGAATAAAT
47151 CTAACCATGG AGAGTATTTA TAAATTTTTT TTTTGTGAGA CAGAGTCTCG
47201 CTCTGTCACT CAGGTGGAG TGAATGGCG TGATCTCAGC TCACTGCAAC
47251 CTCCACCTCC CGGGTTCAAG CAATTCTCCT GCCTCAGCCT CCTGAGTAGC
47301 TGGGATTACA GGCAACCGCC ACCATGCCCT GCCAATTTTT TTTTTTTTTT
47351 TTTTTTTGGA GATGGAGTCT TGCTGTGTCG CCCCAGGCTG GAGTGCAGTG
47401 GCATGATCTT GGTCACTGC AAGCTCCGCC TCCTGGGTTT ACGCCATTCT
47451 CCTGCCTCAG CCTCCCAAGT AGCTGGGACT ACAGGCGCCC GCCACGCAC
47501 CCAGCTAATT TTTGTATTTT TAGTAGAGAC AGGGTTTCAT TATGTTGGCC
47551 AGGCTGGTCT TCAACTCCTG GCCTCAAGCA ATCCTCCTGC CTCAGCCTCC
47601 CAAAGTGTCT GAATTACAGG TGTGAGCCAC CGTGCCAGG CCATAAAATA
47651 TTTTTTATAG ACAAGTGAGA GCAGAAATCA CAGGTTCTTA TGAGCAGGAA
47701 AATTTTGAAG GTCATCTACT CTGAACGTTT TTTTGTGTTG TTGTTGTTG
47751 TTGTTGTTTG TTTGTTTTTG CTTAGTTTAC ATTTATTAATA TACCCGTTAT
47801 GGTCCAGGCC CTGGCTAAG CGCCATCCAT GCAATATATC ACAAGATATG
47851 CCCAGCAATC CTAGGAGGTA GGGTTTATTA CTACCCATCG TACAGAGGAG
47901 GAAACTGAGT CATAGAGTTT TAGTGTCTG ATCCTGGTCA CAGAGCCAGG
47951 AAGTGGCAGA GCAGGCCAGG CCAAGTCTGT CTGACATCAG AGCTCATCAG
48001 AGCCCTCCCC ATTGTCCTTG AACCAGTAAA GATGGAGTTC TTCTACAGGG
48051 GTGGTTGGGG GACAAGGACC CCATGGGTGT GTCTGAGTCA GAAACATCTG
48101 CGAGTGGGCT GAGAAATGAG TCTTCTGTGA AAAAGAGCAA AAGAAAAAAT
48151 GGGTCAGGAG CCAATAATCA TTGTCCATCT TTGTGTGAAT GTATGGTGTG
48201 GGAGTGGGAG CAATAAACGA TTCTAAGGTC ACACAGAAAA GATGCCACCT
48251 TCTCCATCA CATACCGCCC CTCGTCCCC AGTTTTCTCT GAAATAGTCT
48301 TTCTTTTGGC TCTATCCTGG CTCTTCACA CAGGGGTGTC CAGTCATCTC
48351 ATCCTGGTGG GACAGGGATA GAGCTGTGGC AGTGGAGATG AGGAAGCTCG
48401 CCTCCTAAGT GAGTCTGAAT TCTTAAATAT GGAGCCACTC CATAATCATT
48451 TGGAGTGAAT ATTTGGCCAT GGCCCTTTTT CTTGCCAGCT GAGCATGAA
48501 AAAAGGATGT CCTAAGACCA GAGGCTGTGG GACCATTCCC AGCCCTGCA
48551 GGAATCAAAG GAGCTGACAG AATTGTTTGT TTGTTTTTTT CACAAATTGA
48601 AAAAAAAT GTAAATTTT TGAAAAGAAA GCCTCATTGA AAAGAAATCC
48651 CTCTCCCCAG CTGGGCTCCC AGGCAGCCTC CTGCAGAAAC TCCTTAGCAT
48701 TGCAGAGTTG TTCCCATGGC AACCAGTAA GGGGCTTTTT GTTTTCCTTA
48751 GAAGATTGAA TCCTTTCAAC CAGAAGGTAA CCACTGGTTC TTCCCCACAA
48801 TCCCACTCC AAACCCCTA CCCTTATTTG ACTACATGAC TAGTTTGTGA
48851 TTTATGGAAT TTTTATGCCC TAATTGAAAA AGGCTAAATA TACAGAACT
48901 GAGGCTGAAG TGGTTTAAGG AGGCAACTGG CCCAGTGGTT TCTCAGCAAC
48951 CACATGTCAA AGCTGTGGAC GTTAGACTTG ACGAGAGCAA GACATATCAG
49001 AATCTGTAGC AGGAGCATCT AGTCTCCCAG TTCAATAGTG TCCACAAAAG
49051 AAATCCAGAG GTTTTGAAG CAAGGAATTT GGGTGGCACT GCTGTGAGAA
49101 ACAATCACCT GGCTCCTCCA TGGGGCATAG AGTGGAGATG CTTCTTCAAA
49151 TACCCCTTCC TTTCCAAGGC CATGACTCAG AATGACTGGC GTAGGGAGCC
49201 TGGACCTGAT CTCTCAAGG AAGGGGAATC AGATGAGCTG TTTAATCTCT
49251 CTTGTAAAAA GAGGGTTAT GAGACCATAG GCTCATTTTG GGGGGGGTCT
49301 AAAATGCAGT ATTTTGTGAA CTGATATGGG GAAAAAAGA CATTCTGAA
49351 TTGTTGTGAT GTTCGAGATT CTGGGCCGTT CCAGCATAAG CACCTTTCTT
49401 AGAGTACTTG GCTTTGTGAA GTAGTCCTTA TCCCTCCTT CCACTATTTT
49451 ACATCAAGTT AAAATAGAGG AAGATGCCTA GAAATGGCCG TATAGACAGA
49501 GAAACTGCA CTAAACTCC CTCCGTCTAG CCTGACTCCT CTCTAGACTA
49551 TGACCATCGA GGGGCCAGAA ATCATATCTT AAAGATCACT GTGCCTCCAG
49601 TACCCAGCAC GGTGTTTAA ATATGTTTGT TGAATGAACG AACTAGTAAA
49651 ATTTTCAAA CATTAGAGCT GAAGTATCCT TTAAGATTCT TTAGTCCCTC

FIGURE 3, page 14 of 61

49701 ATTTTACAGA TAAGGAAGCT AAGGCTCAAG ACATTGTGTG GCTTGGCCAA
49751 AGGCACACAG CAAGCTAAAG GCAGAGGGAG GACAGGACCC GGCTGTCTCA
49801 ACCCCCTGGC TGCTACACTT CCTGCAGCAT TTCTAATTCT TTTACCATTTC
49851 TTGCGAGGGA TTTTACAGGC ATGTACTGCT AGAGCCGAAA TAATTAGAAAG
49901 CCTCTTACTA CTCATCAGAA AAGCTATGTG AGCCCCTAGG GAGGACACAG
49951 CTAGCCTAGA CTCTGCCTCT TTGCCCTCTG CTGCTTATTA GCAGAATGTA
50001 AGTGGTTGTG TATGATGATT AGTGTAAGTA GGATGGGCAA ATGCACACCT
50051 TTCCACCTTT CAAACTCAGA AGTTGTAACC AAGAGTCACA CTGACTAAAC
50101 ACTCCAATTT CCCTTCTGT TTTTCTTAAC ATATGTCCTA TTTTACCAAT
50151 AATAGCCATG GTATATTAGT CATGGTATT CACGCTAGCT GCAGAAATAA
50201 CTTCCAAATC TCATTGGCTT ACTCAGTGAA AGTTTATTTC TTAATCATAT
50251 AAAGTTGAAT GTCCTGGTCA GGCAGTTATC TAAGCCACAA CTGGGGATG
50301 GGGATGCAGG CAGCTTCCAT CGTATTGGCT CCACCATTCA GGGATGGCAG
50351 AGTTGCTCTG GCATAATCCA ACCAATAGAG GGGGAGGTT TGGCACTTGT
50401 CAGTTAACCA CCTAGCCTAG CATTGACACA CACCATTCT ACATACACTC
50451 CCCTAGTCAT CATTAGTCA TGTGGCCCAA CCTAGATGCA AAGGCATCTG
50501 GGAATGTAG CCCCTATCTG GTCAGCAACA ACTTTGCACT TGGAAAGGGGA
50551 GCCTGAATCG TTATTGGTCT CCAACACATG TAACAGCAA TTATACAGAA
50601 CGTTATTTGT CAGGCAATGT GCCAAGAATT ATTTCAATTA ATCTTCACAA
50651 CAATCCTATG AGGTTATTGT CCTCTTTAAC GTATAGATGA AAAAGTTGAT
50701 GGTAGAGATA TAACCTAACT AATGCAAGT TGCATAAGTG GTTGGTAGCA
50751 AATCCAAATG CAGGCTGTT CTCTCCAGAG CTCAGGCTCA TGATTGCTGC
50801 ATTCTACTGC TTTGAGCTTC TGATCTGAGA AAATGCATCA GCCACTAAGT
50851 AGCCTGTGTA GTCTCCAGCA ATTACTTTCC TCCCTCTGGA TCTTGGTTTC
50901 ATTCTCTGCA AAGTGAGGAT GTTTAACTGG ATAAAACTG ATGTCACCTG
50951 CCAGCTGGGA CATCATATGA TTCTCAGGT AAGCATATCA GGTGGGTGGG
51001 GTCCCCAGTG ATGCTTGACC ATAGCAAAGC CCTTTCAAAG GTTTCTTAGC
51051 ACACCACATA AATGGAAGCC TCACAGTGTC CATGTAGGAG AAAGCAGGGC
51101 AAAGTATTTC CATTTACCCA ACAAGAAAT CAACATATAG TAAAAAGAGA
51151 GTGTTTTCCC ACCAAGGCCT CAGATTGACT AGCGGTAGCC TTGGAATAG
51201 GACTTTAATT TGTATAGTAC TTTTGCCACC AGGGTGGGGG GGAAGAGAGT
51251 GCTTCTTTCG CCCAAATGCT GGTTTCATAA AACCTAAAGA TGTACATGG
51301 AAACACACCA TTCCCCCAAT CCCCCTCAA AAACCTACTG CACTTAAATG
51351 AAAGAGTAAA GCTGTAGGAC TTTACTGAGC AGTGTCTGTG GGGTCTCTTG
51401 CACTGCCATG CTCTGAGGG GCTCGAGGTG TATGAATTCC CCAGCATTAC
51451 TTCTCCTTAG AGGTTTCAGA TGAGCAGTAT GAGCTCCAAA CTCATGCTAG
51501 ACCCAAGTAT TTCATGAAAG AACATCCTT GAATGACTTT ATACAGCAAA
51551 GCTATATTTC ACTGTGTCCT AGAAAACCAA TTGTGTGTGT TTGTGTGTGT
51601 GTGTACAAC CTGTGTGTT TTTCTACCTA TGTCCCCCTG ATGCCCTCCAC
51651 ACAGAACATC CCAAACCTCA TTTCAGGTTT CTCTTGAGAT TCCCAAACCT
51701 GGAACACAGG GATGCTTCAA AGGCCTCTTG GAATGTCTTT TGAGGCTTTA
51751 TATTGTGATA TGTGGACAG ATGGTTAAGA AACAGAGAA GAGCATCACC
51801 AAAAGGATTT CTCATTTTAT GTGGAGATCT ATTAATATT GCCACTAGCA
51851 AAGGCATTCT TTCTTGGGAA TGAATTATGC CCTAGAAATC AGATTGACCC
51901 CACAGAAACA AGGGAGAATA AATAGAGACT TGAGCTTAGA CCTTACAACA
51951 TGGCCAGAGC TGAAGAGGCT GAGCTCTAGG CAGAGAAGT GCAAGAGCAG
52001 CTTCAGAAAG CAGGAGGCT TATTGGGTA GGTTCCTCTG GTGTAAAGGG
52051 TTCTTGTTC CGTTTTCTTC CAGAATAAGA AAAGAACGCA AGGTGTGAGA
52101 GGGTGGATGG AAACAGGGTA TAAAGCAGGA GCATTTGGAA TCTGCCCTTT
52151 GTAGCCTGGC CCAGAGAGCG TCAGGCAGCT TGTGGGTAA TAAGTAACAC
52201 TGGCATTTTT CCATGGTTC TGTCTCTTA AAGAGCAGGA TACATAAAGG
52251 GATTAGATG TCTTGTGGT TTGGAGAAGC TTCTTTTTAA TACCTTGTTC
52301 TAAATTTTAC CTGGAATTTA TTTTAAATCAG GTGTGGTAAG ATGCACAGAC
52351 ATGGAGATGA CAGTCATGAA GGAAGAAGTA TTTATACTCA CAGATCCCTG
52401 TAAATAGGAA GCATGGCCTC CATGCAGGCC AATGGGGAAG CACCAGGGTC
52451 AGCCGCAAGG CAGAAGGAGC AAGAGGAAAA CATGGACAAG AGGCTCTACT
52501 GTGGATTAG TGGCAAAGAA TGGGAGGGGC AGAGTAAGCA GGTTTAGGAT
52551 TATCGGGTTT GAATGACTTG ATTGAGCTGT AGGGTGTAGA GACTGCCTCT
52601 ACTGTCTGGC ACCAGGGGTA ATTAGGGCAG CTGGATAGTG GTCTGGAGTG
52651 TGAGAGCTCC CTAAAGGAGG TGGTTGGAGG TGTAGGTTT GGATTGGTTG
52701 ATCTGTATAT GAAAGGTGCA CGTGCAAGTT GAGTCCTCTA CTATCACTAG
52751 AAATTGGCTG GTCCAGGAG AAGTAGTCTC TCTAGAGACA GCAATGCCCC
52801 AAGTGTCAA GCATCAGAAA ATACAGAAAA AAAATTAAAA GCATGATTAA
52851 TTCATACTCA CAGGTCTAGT TTTTGTGTAG TTAAGAGCAA CCTAAAGAAG
52901 TTGATACTC GTGTTGCAGG TCAGGTTTCC CAGAAATCAT ATTCTCAGAT
52951 GAAGATTTGC ATGAAGGAGG TTTAATGCTC AAATAAGGCC CTAAGGCTCC
53001 ATACCTGTGG AGGAAGTGAA AGAAGCCCAA CTGGGCACAG AAGGTGGAAC
53051 ACAATGCCAG TCACACAAAG ACCTCAGTGG ATCCTGGGCC ATGAGGAGCT
53101 CTAAGCACAG ATGACCTTTC AGAAATGTCT CCAAGTGGGG AAAGGAATCA
53151 TGCTAGTCAG TGGATGTGGG CTTCCCACTC CACCCCATGA GGGCATGACC
53201 TTAAGTGAGA GAGCTCTTTC GACACAGGGC ATCCTAAGAG GGGCACTCAG

FIGURE 3, page 15 of 61

```

53251 CAGCCACATT GGGCACCAAG ACTCTCAGCA GCTAGAAGAA GAAGGTATAG
53301 TCCCAAAGGG GAATCTGGGC TGCACACCTT AGTATCCATT AGAACTGGAA
53351 GTAGGCTGAA TCCCAGGCAG GGATCCCCTG GAGAACACAG GTAATTTTTT
53401 AAAAAATCAA GCTATGTGTC TGAGGCTATG TGGTAAGACA TCTCAGTTTT
53451 CTGCTAGGAA AAGCCACCAA ACCAGATTGG CTTATTTCATG TTGAAAAGTC
53501 TGAGAATCAC ACTCAGATGT TGTTGATAAT TCTGCTTGA TAAAATTAT
53551 CTATTGGTAT GCTTGTGATA TAGCAGTACC ATTGCTAAAA ATTCCATGCG
53601 GAGAATCCAA TCTGCATCAT TTTCTTTCTC AATGATTTGT TTTTAAAGGC
53651 AGAGGTTCGG CTGTGCCCTT TTAACCTTC TGTGCAAGTG CCAGCTTCCT
53701 TTCAAATGGA GAAGCAGCAG CCCTGTCAGA AAGGGTGGCT GGAGCTCCCC
53751 TTTTGTGAGA GGAGGAAAAC TTACTGGGAA TTACCTGTTC GAGAGCCACA
53801 CATGAAGGCA TACCACTGCT TCCTCTGACC TTCCAGCCGG TATATTAAATG
53851 ACATACTGTT GTACCTGAGA ACCAATGATG AAGTGGGTGA TGTGCCTGGC
53901 ACCTTAAAGG CTTGGGCCTG CTTTGACAGG GGAGATGATA CACAACATGG
53951 CTGTTAGCCA GCTCTCACTG CATCTGGAAG CACCATGTTC CTTAGAGCCA
54001 AAGTTCTCAA ACTGTGTTT CTGCTGGGCT CCACAGATCC TTCCCGTTCC
54051 ACCCTGCACA CAAACGTGCA CACACATACA CACACACACA CACACACACA
54101 CACACACAGT GTTCTCAATG CTCGCCATTT AGTTAGTATG CACCAATAT
54151 GTGTAGTATC TGGTTCCACC CCTGGCCTCT CAGACAATTA TTAGTATTTT
54201 TGGGAGCGGG GAGGAGAGTC AGGAAGACCC AAGCGCCATA TTTATTATTT
54251 CCCAGCCAC CCCGGCCAG GCTACATCCA AGTTCAAAGT CTATGACCCC
54301 CTCCTGAGC TTTCAGCACT ACCTCCCTTT GTGGGGGAGG GGGGTGCCAA
54351 TTCTCTTTCT TCCTCATCAT TCCTGTGTC AATAAAAAGC CTAGGCATTC
54401 CTTTGAGAAA CTTGGGCCTG GCATTGGAAG GCGCTGACA AAGGCTTTGT
54451 TAAATGAGTG GAGGGAGGGA CGGTCTGGGA GATACTTTTT CAGGTGGCAT
54501 AGGACCTCCG CTTCTCCCT TCTCACATGA GAAGGAAGAT TTTCTAGAA
54551 ATCTACAGST GTTTAAGCTG GAATGTGCC TACACATCAT CTGGTTGGAC
54601 CCTTTCATTT TGCAGATCTG AGGCCTAGAA AGATTGGTA ACTTGCCCA
54651 GGTACAGATT GACAGAATTG CTCAGTGAAA AGTCCAGCAT AAATACCCCA
54701 GCCCATGTGG CCACTGGCTG TGTGCTCAGC TAGTGAGGCA CACTTACTTC
54751 TTAATTTGTG CCACCCACTT TTCAGGCTCC CTTAGGACAG CCTCCACCTG
54801 CTCCTACTGT GCTTCCCATC GTCCCTCTCC TCAGGCACAG GCTGAGGAGT
54851 AATAAGAGCA CTGTATATGT GTCAGGCCTT ACTGTGTGCT AGGAATTGTG
54901 CTAAGTACTT CCTATGAATT TTCCATTTAT TCTTTATAAT AACTTTGTAA
54951 AGTTAGAGCC ATTATTCCAG AAGGGAAAAC CGAGGCAATG GGAGTCAAAG
55001 CAAAGAATTT GGGCTTTTAA CCATTACACT ATTTTGCACA AGTAGCCAGT
55051 AATGAAAAGG CTGCTATCCG GAATCATCTT TGCAAAAGGT AATTTCTTTA
55101 GCACTTTATC AGAAGAAGGG GGCTCCTTCC TCAAATTCTG AGGGAAGAGA
55151 AGTGGGGAAG AAAAGATGAC TGAATCCAAA GCTCGGGCAG GGAAGACACA
55201 TCGAGTGCCA AGTGGCTGCT GCTGGGTCT AGTCTGACT CAGCCGCCAT
55251 CTTCCCAAGT GCTTCTGGA ATTCTCTCCT CTCGTGGGGC CTCAGCTCCT
55301 TCATCTTAGG AAAGAAGGGT AAAGATCTAC AGACAAATTG ATCTTTAAGT
55351 ATCCTTAGAG CATTACCATT TTCAGAATCT AGGATTCTAT ATCTTCCAA
55401 TTATCTCTGT GTAGGGAATT ATTGGTCGTG TCTCTGATT AGGGAGCCGG
55451 ACACCTCGTCT GTGAGCCCA CCTGGCTCTG CAAAGTCCCT TGTGTATCTG
55501 CCCTGCCTGG TCACGGGAGA GGAAGAGACA AGGAAACACC ACCGCTCCGA
55551 CTCTGTGGAG CACGCGCTCT CTCCCACCCA CACACCCGCT CAGGAGAGGA
55601 GGAACCTGCA CATTGAGTC TCCTCAGAGC CTCTGCAGAC TCCCAGCAGG
55651 GGTCTGGCTT TCCTCTCAGG TAGCACAGTC ATGCTGTAAA CTCATTTGGG
55701 TCTTGCTTGG TATGATAATG CGTTTAGTTG AAGGGTTATA TAATTGCAGA
55751 GTCGATGAG ATCTCTAGGC CAATTTAAAG TCAAAGCTAT TTTTAATGGA
55801 ATTGCCAGAG GAGGGCAGGG ATGGGGGCAG GGAGGAGAGA TGGTTAGAGA
55851 GTGCTTTTGA AACCACCTC CAACAATTC AGCCATTGCA TTTCCGAACC
55901 TGAATTTTCA GGGCAGAAAT TGGACAATGC CAATTAATC AGAGCAGGTG
55951 TATGTGAGAG CTGGGTTTAC CTTCTTGAG CTACAGTTT ATTTTGAATA
56001 CTGTTGCAGG TAGTGAAAAT ATGACTAGGC TGAATAAGAG ATCTCAGTCT
56051 ATTCCAGCT CAGCCAAAAG CCCTTAGTGT GTCCTTGATC AAGTTACTTC
56101 CCCTATCCAT TTCCTTACCT GCAAAATGAGA AGCTTGAACC AACTATCCT
56151 AATGTCCCTT TCAACTCTAA AATCCTAGAT GATCCTCAGA TGTCAACAGT
56201 GCTGAAGCCC AGCACTGTAA GATGTCAGGT GGTCCGAGA GGGTGAGGCT
56251 CTTCTGCTC AAATTATTTC TTCCACCCAA GACTCCTCAG TTACCTCTGT
56301 ACACAACCTT GCAGGCCCAT CTAAGTATCC AATAACCTGG GGCTTTAGTT
56351 TACAAATTTT CTTGGGGAAG AAGGTAAAAG GGATCTAGT TTTCTGGGTTA
56401 TGAATGCCAT GTAGGGAGGG CATGGTTTGA GTTAGTCTG GTGCTGGGAG
56451 TTCATGAGAC TTATTCTCAA ATCTTCAGAG AAGAAAATTC CGTGAACACC
56501 TGGGAACATC AGGAAAAAAA AAATGTCCCC TAGGCTACTG TCAGGTTAGG
56551 CTGCTGGTTC TGATTTGACC TTGAACTTGC TATAATTGAA CAAGATAAGC
56601 ATGTGACCTA ATGAAATACT TTAACCTTG TAGCTTCCTT CAGCACAGAA
56651 GTGGCTCTCT GAACCAATTT TAAGCAATCC TGGCTCTATC TGTGCATGTT
56701 GATTTAGCCT GTGGTTATAG TGTTAACAAT TTAGTGATTC ACCTCATTTT
56751 TAATCTCTCT TTCCCTTTAG CAGGATCATT TTCTCTGTGT TAAGGGATCA
    
```

FIGURE 3, page 16 of 61

56801 ACATTGAGGT AAGAATGGCT AAATAATAGC ATCTTCTGGA ATACAAATGA
56851 CTTTATAAAT AAAAGAAGAT AAAAGGAAGA AGTAGGATGA TTTCTCAGCT
56901 CTAATACACT TAGCAAATGC CATATGCTTT CTCTGCGTG TACTGGTCAG
56951 GCCAGTTCTA GATACAATCA TGCGCTGCAT AATGATGTTT TGGTCAACAG
57001 TGGATTGCAT ATGTGACGGT AGTCCTTTAA GATTATAATA CCATATTTTT
57051 GCTGTGCCTT TTCTAGGTCT AGATATGTTT AGATACACAC ATACTTACCA
57101 TTGTGTTCCA ATTGCCTACA GTTCCAGTA CAGTAACCTG TTGTACAGGT
57151 TTGTAACCTA GGAGCAATAG GCTATACCAT ACAGCCTAGG TGTGTAGTAG
57201 GCTATACCAC TTAGGTCTGG GTAAGTACAC TCTATGATGT TTTACAGTG
57251 ATGAACTTC CTAATGACAA ATTTCTCAGA ATGTATCCCA GTTGTTAAGT
57301 GAGGCATGAC AGTACTATAT CTCAAGACTG TCCCAAGCT GAAGTCTCCA
57351 GTGGACACAA AGACCAATGT ATTTAGTTGA ATCGTGGACC CCAAAGTTC
57401 AAGTCCACCC AGAACCTCAG AATACAAGTT CAAGTCCACC CAGAACCTCA
57451 GAATACAATT TTATTTAGAA ATAGGGTCTT TGCAAATGTA GTAAGTTAAG
57501 ATGAGGTCAT ACCAGAGTAA AGTGGGCCCT AAATCCAATA TGA CTAGCAT
57551 CCTTGTAAGA AAAGGAAAAG GAACACAGAC AGGGGAGAAG GCCATGTGAG
57601 AACAGAGACA AAGACTGGAG TGAGGCATCT ACAAGACAGG GAACACCAAG
57651 GATTGCCAGG AGCCACCAGA AGCTAGGAAG AAGCAAGGAA GCATCCTCTT
57701 CTGGGGCCTT CAGAGACAGG ATGGCCCTGC TGACACCATT GTTTCAAATG
57751 TTTAGCCTTC AGAACTGTGA GACAATAAAT GTATATTGTT TCAAACCATC
57801 CAGTTGTGGG TACTTTGTTA TAGGAACTA ATACATTGAG GATGGAGAGG
57851 TGCTGGGAA GCCCATGAGA ACAAATGGAA AGAGCCAGAA GCCCTCAACC
57901 TTGGCTCGTC TACAGCCCAT TTTCTTCATT CCCGCATCCA GGCTTTGAGA
57951 TGACAGGAAG CTGTGAAACC TGTGAATTGT CTCCACCACA AATCTGCTC
58001 CCTGGTCCCA CTTAGACTGT CAGGGTTGTG TGGCAAGGCT TTCATGCCTC
58051 TCACTGACTG CCTAGTACGT CCCCTCAATG ACTGGTCCAC ATCTTTCTCA
58101 CCTTTCTCAT GCATGGCCCC AGATCCACCC CAGTGCCTCG TCCTCAAGAG
58151 GTGATTTATT CCGAGACACT GATGAGAGCA CTGTCCTTCC TGTGTCTGAG
58201 GGAAGGCATG TAACTCTTGC TTATCTTCAC CTGTGCTCTA GATCCTGACC
58251 TTCTCTGGCA ACCTCAGGGA CCTTGCACCA TCCATTCTTC TCGCCTAATG
58301 GCGAGACAT GTCTCTCCCT CTCCCTTTCC ACTCTCCCTT GCCATTCTTA
58351 GTATCTTTCT ACAAGCAGGT CTTCCAAAGT ACTGCTTGAG GTCTGAGTTG
58401 GAGGGAACAT GCCTCTACCC TACTAAAAAG AGAAATTCCT CTGCAGAAGA
58451 CCCAAGCTGA CTGACAAATC CCTTTACTGC AACTGCAGCT CTAGCTCCCA
58501 CCATTTTCTT TACTTACTC TCCTGCTCAG GTTCCCTGGC ATTGCTGATG
58551 TCTTTTCAGCC TTTGTGCCCT GGCCCTTTTC CTCCTCTCCC CTCATCTAGC
58601 ACTACCTGTC AAAATCAGGG ACTTACTTTA AAATTTATCC CAAATATATCA
58651 TTGCCATCAT CTCCACTGTC ACCTTATCAT ATGTTTGAAT AGCGTTTCCA
58701 TTTCCCAAT TTCTTCGCAT GCACTTTCTC AATTGAGCCT TACGAATCCT
58751 AGAGCTGAGA AGGGTAACAA TTTATGAGTC CTTTGACAAA TGTGGAACCT
58801 GACATCACAG AAAGTAAGTT GCCAGCCGAT ATGTCACGT CTTCAAACTC
58851 TTCTTTGTAT TTTTATTATC TCCCATTATA TTCTGCCTCT TGTAAATGATT
58901 ATTTCTACAT TGGTCATATC TTTCTTCTG TACTGATCTT CGCTTATGAT
58951 AACAAATAAT AATAGTTTAC CTTTGCATCA CACTTGATGG TTTACAAAAT
59001 GCTTCAAATT CAACATGGCC CTTGATCCTG AAGATATTTA TCACTTAAGA
59051 ATCATTATCG CCATTTTAAA ATACAAATTT ATTACTTGGG CTAAATTTTC
59101 TTATTATAGT TGGGATAGGC CTTTATCCAT AGGGTGAGTG CAGTATTGT
59151 GGA CTGTAT GGCAGCTTAA ACATTTAGTA CTTGAAAATC TGATGCATTG
59201 ATCATCAGAG AAATGCAAT CAAAACCTACA ATGAGATATT ATTTACCCCC
59251 AGTTAAAAATG GCTTTTAGCC AAAAGACAGG CAATAATGAA TGCTGACGAG
59301 GGTGTGAAGA AAACGGAGCT TTCATACACT GTTGGTGAGG ATGTAATAAT
59351 GTACAACCAC CAGGGAAAAC AGTTTGGAGG TTCCTCAAAA AACTAAAAAT
59401 TGAGCTACCG TGTGATCCAC CAATCCCACT GCTGGGTATG TACCCAAAAG
59451 AGAGGAAATC AGTATATGAA AGAGGTATCT GCAGCCGGGC GCGGTGGCTC
59501 ACGCCTGTAA TCCAGCACT TTGGGAGGCC GAGGCAGGCA GATCATGAGG
59551 TCAGGAGATC GAGACCATCT TGGCTAACAC GGTAAAACCC CGTCTCTACT
59601 AAAAATACAA AAAATTAGCC AGGCGCGGTG GCGGGCACCT GTATTTCCAG
59651 CTACTCGGAA GGCTGAGGCA GGAGAATGGC ATGAACCTGG GAGGCGTAAC
59701 TTTTCAGTAG CCGAGATAGC ACCACTGCAG TCTGGCCTGG GCGAAAAGAG
59751 GAGACTCTGT CTCAAAAAAA AAAAAAAAAA AAAGAAAGAG GTATCTGCAC
59801 TCTCATGTTT GCAGCAGCAC TGTTTACAAT AGCTAAGATT TGAAGCAAC
59851 CTAAGTGCCC ATCAACAGAT GAATGGATAA AGAAAATGTG GTACATATAT
59901 ACAATGGAGT ACTATTCAAT AAAAAAAAAA AATGAGATCC AGCTATTAGC
59951 AACAACTATG ATGGAATGG AGATCATTGT GTTAAGTGAA ATAAGCCAGG
60001 CACAGAAAGA AAAACATCTT ATGTTCTTAC TTATTTGTGG GATCTAAAAA
60051 GCAAAACAGT TGAACCTATG GACATAGAGA GTAGAAGGAT GGTACCAGA
60101 GGCTGGGAAG GGTGGTGGGG GGCTTAGGGG GAGGGTGGGA TGGTTAACTG
60151 GTACAAAAAC AGAAGAATG AATAAGGCCT ACTATTTGAT AGCACATCAG
60201 GGTGACTATA GTAAATAATA ACGTAGCTGT ACATTTTAA AAAACTTGAG
60251 TATAACTAAA TTGTTTGCAA CTCAATGGAC AAATGCTTGA GGGGATGAAT
60301 ATGCCATTAT TCATGATGTG CTTATTTTAC ATTGCATGCC TCTGTCAAAA

FIGURE 3, page 17 of 61

60351 CATCATATGT ACCCAATAAA TATATACAAC TACTACATAC CCACAAAAAT
60401 TAAAAGTAAA AAAAAAATT AAGAAAATAA AAGAACAAAA GTAGATGTAT
60451 TCTACATGTC TCCATATTGT AAAACTAGAA CCAGTCAGTT AACTTTAGAG
60501 GAAGGGGATT GTGGACTTGA TATAAAGACA ACTTTATAAT ATGCAGAGCA
60551 GCCTAATCCT ACAATTGTCA AAAAGTATAG TGGATTCTTT ATTTATTTGT
60601 CCATGATATT ATAGAGGTCA TTTCTGCTTT AACAAAGTAGG TGGGAGATAG
60651 CTAGGTAGGA TATATTTTGT TCTTATTTTT TATTTTAAAA TATTGGGCTG
60701 TGGCTGGACA TGGTGGCTGA AACCTGTAAT CTCAGCACTT TGGGAGGCTG
60751 AGGCAGGCAG ATCACCTCAG GTTAGGACTT TTCGAGACCA GCTTGGCCAA
60801 TATGGTGAAG CCCCATCCCT ACCAAAAATA CAAAAATTAG CCAGTTGTGG
60851 TGGCATGCAC TGTAAGTCTCA GCTCCTTGGG AGGCTGAGGC AGGAGAATTG
60901 CTTGAACATA GGAGGTGGAG GTTGCACTGA ACTGAGATTA CGCCACTGCA
60951 CTCAGAGCTG GGAACAGAG TGAGACTCTG TTTTATATAT ATATATATAT
61001 ACACACACGT ACATATACAT GTATATATAT ACACATTATT ATTGAAAGCA
61051 GCCAAAGAAA AATAACACAT TATATATAGA GAAAGAGCAA ATGATGAGTG
61101 ACTTTATATG TATATATATG TGTGTGTGTA TATATATAAT GTGTATATAT
61151 ATACATATAT ATATATAGGT TAAGAACCTT CAGCACATGT ATACCTATGT
61201 AACAAACCTG CATGTTCCAGC ACATGTATCC CAGAACTTAA AGTGAAAAAA
61251 AAAAAAAGA ACCTTCTGCA TGCCAGTAAC TGTGCTAAGT GATTAGGATG
61301 CAATGGTAAT AAAAACAAAG TCCCTCTCCT TAAAGAATTT TCTATTTAGA
61351 AGGGAACACT GGTAAATAAA AAATAAATAT ATAATTACA ATTTGTGAAA
61401 AGTGCTACAC ATGAAAGAGT GCTGAGACAG ACATCAATGG ATAAACTTTA
61451 GATTGAGAAG GGCCTCTGACA AAGCAACATT TAAGGTGCAA CCTGAGAGAA
61501 TAGAAGTTAA ACAGGCAGAT ATTGGTGAAG GAGCAGTCTA GGCAGAGGGA
61551 ACATCATTTG CAAAGGCCCA GGGTAAAGAA GATCCTGGTA AGGAAATGAC
61601 AGTGAAGAAA GGTAGTGTGA GCAGGACTGT GGCTAGGGCG GAGAGGCAGG
61651 GAAAGTAGTTT AGAATTTCAA TGCAATAGGA AATATGGAAG ATTGAAGGCA
61701 GTTTTGCATT ATAAATAAAT ATGATTGCTA TTTTAAAGCT ACTTTATCTA
61751 AGGATGGAAG ATTCTTAAAT AAACCTGTGT ATACTTGGAC CACACCACCA
61801 TGAGCAGCAG CTGCTCTAAT TCAGAGCAGT CCTCCTGCCA AACGCTGTGT
61851 GAGCAAGAAC TCTGATTAT AAAGGGGCAT TTTTCTCTGG GAGAAAAACA
61901 GTGATCCATC TGTAGAAGTA CCTGAGTCTA AGGGGAGACG AAGCAGCAAA
61951 AGAAATTGGC TTGTGAGGAC AGGGACATTG TAAGAATGAA AAGAGGAAGG
62001 GAGGTGCTGA GCCCTTTTTC TTTTCTCTTT TTCATTTTTC TTTTCTTTT
62051 TTTTGTGAGC GAGTCTTTCG TTTGTGCCCC AGGCTGGAGT GCGATGGCGT
62101 AATCTCAGCT CAGTGCAACC TCCGGCTCCC GGGTTAAAGC GATTCTCCTG
62151 CCTCAGCCTC CCAAGTAGCT GGGACTACAG GCCCTTTTTC TTAATCCACA
62201 ACCTTCAGTT GGATTTTGCA AATGAGTCTG TCTTCACTGT TTCCATTGAG
62251 TGGCTGGAGA CCACTTGGAA GAGAATCTCA GAAATAAATC TGGCTGCTCA
62301 CCCAGTTGTT TGTAATTTT TATTGAGACT CTACTGTGTG CCAGGCTGTA
62351 CCAGGCACCT AGATATGACA GTGAATGAGA TAGGCAACAT CTTTGCCATT
62401 GGAGAGCCTA CACTGAAGTG GACATGAGGG AGTTGAAAGC AACTCTTATA
62451 GGAAATGATG GTAAAGACGT CCAAGAGAAG AAAGATGAAG GGCACACACA
62501 TGCACGGATG CCAAACATCT ATCAGAGAGA AAGGAATTTT CAGACCTGAC
62551 CTGAATGATG AAAGGAGGTT TTTGGAAAGG AAAATAGAAG GGAAGGACAA
62601 GGGAAATTAT CTGGGCAGCA ATATTTATCT GCTGTGGTGC TTCCTCTCT
62651 CTCTAATCCT TTTCCACCCC AGCCCCAAAT TTGAAAGGAT TGCAGGGAGC
62701 TCCTGCTGGA GTCATTTCTG GTATTAATAA TGTACAGAAA GGAAAGCTTT
62751 GGTTCGTGAG TTGCAAGGCT CCCTGTCTTT CATTCCTATT GTAGAAAGCA
62801 GCTTATATAA AAAGATGTGC TGTGTGGCCC TTTGAGCTGC TGTGATTGTG
62851 TTAGGCCACC CTGGATGGT ATTGCGATGA ATTAATCTAC TGTAGCATCT
62901 CTACAAATCA AGAGGCTGGC TTCTGTTTGA AATGTCCCAA GGCTTTGTGC
62951 ACAGGGCAAG CTAAATGTCT CCCTACAGTG AGACTGAAAA TGCTTGGGT
63001 GCCCTTGTG ATAGGATCTG ATATATAGAT GCATGTCTAC AATTGCACAG
63051 TGGCTGCTGG CAACATTTAT TACAATCTGA ATGTGAAATG GCTATTCTGT
63101 TCAAGGATTC TGATAAAAAG TATCAGCCAC AGTAGATGTA TAAGGAGCCT
63151 GGTTCCTACT GCACTGACTA CAGTTATCTG ATTTTCTTTT TCTAGTTTCT
63201 TTTTAGTCTG TGGAGCAAAC AGAGATTTCC TCCCCAAATG ATGTCCTTTC
63251 TCAGTCACCA GGGTGTGGTT ATTTGGTTTT ATGTAGAGGA GATAGAAACC
63301 AATCAGTCTA AATCATATTC TGTGAAATC AGAACCAAGG GATCCACAAT
63351 CTGGCTCCAA TCTAACTTTC CAGCCTCAAC TCCTACCTGT TCTTTGTTAC
63401 TCTTACCCCT CTAACCACCT TGTGGGATCC TGAACCTGTA ACCTGTGCTC
63451 AGACTGTGTC TTTTGCACCT CTCTGATGGG AAAGATTCTC CTCATCTTTT
63501 ATGATTGAGC TGAAGTTTCA ATGCTTCTGA AATTTTCTTC TGCTCCTGCT
63551 GGAGAGCTTG TTTCTTCTGG ATTTCCCATG GTCAGGTCTC GTGTTGGCA
63601 TTGGGATACA AAGCCAAGTA ACATAGCATC CATATTCTCA AATCCTCACA
63651 ATTTGGTAGG AATATAGACA AGTAAATACA CCTGTGCAA CCTTTGTAA
63701 CAGAGGTATA AAAGGGTATG AAATAAAGAA TTTAATCAAA TCAAAATTGAA
63751 TATGGGCTTC AACTCTGAGA TCTTCTTCCA TGATAGGTTT CCCAGTTTAC
63801 TCTAGTGAGG TCAATGATTC ATACTGGCAC TCTTCTAGGC ACATAAGGCT
63851 CTATCCTATT ATTAATAAAA GATTATTACC ATTCTCACTG CAAGCAGCAG

FIGURE 3, page 18 of 61

63901 CAACCTGACA CCATCATCAT CATAAAATAA GTAAAACNAG AGTTAATTAA
63951 GTGTGAACCT TCTAAACCAA CATTGTATGA GATAATTACT CATAAAAATG
64001 ATTCTTCACT TTCCAAAGGT GCCTCTAAAT ACTAAGATTT CAGTTACAAT
64051 AAAACTTAGA TCCAATTAC AGATATTAAT TTTGGTCCAT TTTCCAAGAA
64101 TATTTCTTT TCTCATAAAA TAAAAAAGT ATGTGAGAAT ATTAGCACAA
64151 AGGGGTTGCA AAATAAATTT TATTTATCCA GATGTGAGAT AAGAGGCACA
64201 TGGGTCTTTT TTCTTGTGTT ACTGCACTGG TTAGGACCTC TAGTATGTTG
64251 AATAAAAGTG GTAAGAATGG ACATTCTTGC TTTGTTTCCA GTTTGCTTTA
64301 ATATGTTTTT TGTCAGTTTT TCATAGATGC CTTTTATCAG ACTGATTAAT
64351 TCAGTCTATT ATTATTTTCAG TATGTTATTC AGTTTATTAT TTCATAATAA
64401 TTTTTTAAAC CATGAATGAG TTTGAATTTT GTCATTCCCT TATGTATCTG
64451 TTGAAATGAT CATATCGTTT TGCTTCTTAA AGCTTCTAAT ATGGTTTAAT
64501 CACATTTTAT GATTTTTTCAA ATGTGAAGCA AATTTAAAT CATGGCATAA
64551 ATCCTACTTG GTCATCGATG TGTATCCCTT TTTGTATGCT TCTGGGTCA
64601 ATCTGATACT ATTTTGTAA GTATTGTGG TGTCTTTTCA TGAGAGATGT
64651 TGGTCTGCAA TTTTTTTTTT TTGTAAGGTT TTTGTAAGGG TTTAAGAAAG
64701 CAAGGTCAGG TAAGCTTCAC AAAGTAAGTC AAGAAGTATT TTCACCTTTA
64751 TCTTCTGAAA GAATTTATGC AACGTTGAAA TTATTGTTT CAGAGATGGT
64801 CAACAGAAATA TACCAGAGAA ACTATTGGA CTTAGAGCTT CCTTGGGGGA
64851 AGGTTTTTGA TAAATAATGC AATTTCTTTA ATACATAGTA CTTATATTTT
64901 CTATCTTACC TTGTGACAA TCTGATGAAT TGTGTTTTTC AAGAAGTTTG
64951 CCCATGTCAT CTGAGTTGTT AACTTACTA CAACAAAGTC TTTGATAATA
65001 TTCTTATATT AGCCTTTGAA TGTCTATAAG ATCTGCTCCT ATGTTCCCTC
65051 TCTCACTTTT TTAAGAAGT CTGCTAGAG GTTTACCAAT TTTATTTTGT
65101 TTTATTTTAT TTTATTTTTT CTTATTGAG ACAGAGTCTC GCTTGTGCGC
65151 CCAGGTTGGA GTGCACTGGC TCGATCTCGG CTCACTGCAA GCTCTGCCTC
65201 CCAGGTTGGA GTGCACTGGC TCGATCTCGG CTCACTGCAA GCTCTGCCTC
65251 AGGCACCAGC CACCATGCCC GGCTAATTTT TTGTATTTT AGTAGAGAGC
65301 GGGTTTCACC ACGTAGCCA GGATGGTCTC GATCTCCTGA CCTGTGTATC
65351 CACCTGCCTC GGCTCCCAA AGTGCTGGGA TTACAGGCGT GAGCCACGCG
65401 GCCTGGCCGA GGTATTACCA GTTATTAAT CTTTCAAAG GACTACATT
65451 TGGCTTGTAT AATTTTCTCT ATTTTATATC TACATTATAC TGATCCAAT
65501 TCTTATCTTT ATTCTTTTCT TCCTTCTCTT CACTTGGGT TTAATTTGTT
65551 CATTTTTTTT TCTGGCTTCT TGAGATAGAA GCTGAGATCA TTGATTTTGA
65601 ACCCTTCTCT TTTCTAAAT AAGTGCAAT AACTTACAC ATTTCCCTTT
65651 AGCACTGCC TTAGCTGTAT CTCACAAAT TTGATATTGT CTTTTCATTG
65701 TCTTTTATTC AATATATTCT AATTTTCTT GTGATTCTT CTTTGGCCCA
65751 TAGGCTGTTT AGAAATATGT AGTTAGTTTC CAAATATTCG AAGACTTTCA
65801 CAGATACCTT ACTATTATG ATTTCTAAT TAATTCTGCT ACAATCCAAG
65851 TATATACATT ATAAAGTTTC AGCCTTTTGA AATGTATTAA GAATATTACC
65901 AGAGATAAGA AGATAAGAAT ATTACCAGCG ATAAGTAGGG ATATTTCATA
65951 AATAATAGAC GAATTGATTC ATCAAGAATA TACAACAATC ATAAATGTGT
66001 ATGTGTCTAA TAACAGAGTC TCAAATTATA TGAACAACAA CTGACAGAAC
66051 TAAAGAGAGA AATGGCCAAT CCCACAATCT TTATCTTTAT CAGGTGATTT
66101 ATCTTGTGTA ACATTCCTTG TGCTCTTGAA AAGAAAGTGT ATTCTGTAGT
66151 CATTGGGTAT AAAATCTAT ATATGACAAT GAGGTGATTG ATAAATTTAT
66201 TTAGATTGTC TATATCTTAA GTTTGTAGA ATTATTTCAT GAATTACTAT
66251 GACAAGGATG TTAACAACCT ACAGCTATGA TTGTGGAATT GGCTATTTCT
66301 CTCTTTAGTT CTGTCACTTT TGTTCCATGT AATTTGAAAC TCTGTTATTA
66351 AACACATACA TTCATGATTG TTGTATCTTC CTGATGAATT GGTTCGGTTA
66401 TTATTTATGC AATGTCCCTA TTTATCTCTG GTCATATTCT TTATCTTGAA
66451 GTCTTTTAA CTGATATGAA TGTAAGCCACT TCATCCTTTT TATGCTTACC
66501 ATTTGCATAG TTTATATTTT TCCATTATCT TATATTACA CTATTATACC
66551 CTTTATACTT AAGTCCATGT CTTGTAGACA GTATGCAGTT AATTGTGCTC
66601 TGATTATTTT TACTCCTTTC TGACAATTTT TGCCTTTCCA TATAATATGC
66651 TTATCAATAC AGTTGGAGTT AAATCTACCG TCTTGTATT TGTACATCT
66701 CCCATCTTTT GTTGTGTTT CTCATTTCTT TGTATTTAC CTTCTTTTCA
66751 GTTATTTTTT TTTTGTATTC CATTTTAAT CCTCAATTGG CTTTATAGCT
66801 ATATATCTTT GTATTATTTT TTATGTTTGT CTCTAGGAT AGCAATATGT
66851 ATACTTACCA CAGACAATTT AGAAATCATA TTGTACCACT TCACATAAAA
66901 TAGAAGAAGC TTGCAGCAGT CTATGTCCCT TTACACTCCC ATCTTTGTG
66951 CTATTGTTTC CGTATGTATT ACATCACGTA CATTGTAAAA TCCACAATAG
67001 AGTGTATATA TCTTTTCCA AATCCTTGTG TGAATTAAAA ATTTTATGAG
67051 TAGAAAAATA CATATAACAT TTTATCTTAA CCTACATACT TACCAGTTCT
67101 GCTTCTTTT CATTTCTACC TGTTTCAGTC TTATCTGTAA ACCCGTTTTT
67151 ATTTGGTGTG ATTTCCATTA GCATTTCACT GCAGAACTTC TAGCAACATA
67201 TTCTCTATTT CCATGTATCT TAAATATCT TTATTTTGCC TTCGTTTTTG
67251 AAATATATTT TAATTGGACA TAGAAATCTA GGTGGCAGT TTTCTCTTAT
67301 ACTCTGGGT TTCAATGTCT TCTGATTTCT GTTGTATTAT AGGAAAGTCT
67351 ATTGATTATT TGCTCTTTCT CTATACACAA TGTATTATTT TTCTTTGGCT
67401 GTTCAAGAT ATTTTCTCT TTATCTGTGG TTATCAACAC TTTGATTATG

FIGURE 3, page 19 of 61

67451 ATGGCCTAAG TGGTATTATT GTTGTTTGTA TTTATTCCAC TTGGTGTTC

67501 TTGAGCTTCT AACTTCTGTG AGCTTTTTTT TTCTCAGCGA ATTTGGAAAA

67551 ATTTAAGCCA ATTATTATAT AATTTTCTT CTCCATTCTT TCTACTCTCT

67601 TTGGAACCTC AGTTGTACAT AGGTAGACT GCATGACGTT GTCCCATAGA

67651 TCACTAAGAC TCTGTTCAAT TTTCAATTTT TTTCTCTATG TTCTTCAGAT

67701 TGGACAATTT ATCTTGATCT CTATTAATGT TCACCTATCC TTTATTATGC

67751 CACCTTCAAT CTGATATTAA GGCCATTCTAG ATCTAGAATT TCTATTAGGT

67801 TATTATTATAT AGTATTAAAT TCTCTGCTAA GATTTTTTGT CTGTTTCATTC

67851 ATTATGACCA CAATATTAGG TTCTTAAACA TATTTTAATA GCTGCTTTCA

67901 AGTCCTTGTC AGTTAATTCC ATCTGAGTCA TCTTGGGGTT ATTTTCTATT

67951 GAGTGATCTT TACCTTATCT GTCGGTCACA TTTTCTCTG TTTCTTCACA

68001 TGTCTAGTAA TTATTTATTG TTTGCTGTAT ATTGAAATGA AATATTATAA

68051 ACAGTATCAA TTACATTATC TTCTTTTAA GGGTATTGAG TTTTGTCTG

68101 GAAGTAGTTA AATTACTAGT AGAACTTTT GTTCTGTGCA AACTTGATCT

68151 TATTCTTTGT TACAGTGAGC CTATTTTAGT TTTAAAGTTA GTCCTAGGGT

68201 ACAACTCTTG CTCTATTGTA TGCTCCTTAC TTCTATCACA TTTATTCTTA

68251 TTGCCTGAGA TAGTCAATGA GTTCTCACCT GAGCAGGAAC TGCAACATTT

68301 CTTGACATGG TCTTACCTAT GTATTCAATC TTCATCTCTC AGGCCTGTAA

68351 GAAGAGATCT CTGTTGGGTC CTGTGGAATC TTGCTTGCAC TTGGACAGCT

68401 CAGCCTTCAG CCAAAGACTT GCAGGAAAAC CCCATAGAAA CATCTGGGCC

68451 CTCTCAATAT TTGATGTTTA GGAAGCTAAA CGTCAAGTAT AGCCTCCTTT

68501 TCTAGGGACC CTATCTTGTG AATTTCACTC ACCTTAACAA CTCAGAACTC

68551 TTATCTTCTG CTTCTCAGG GGAGCTAAAC TGTCACTTTC TGTGGGCTCC

68601 ATCTTCTCTG TCCACAATAG GAAAGTATCT GCAGAGAAAA GGCTGGACAA

68651 TTGTGTAGTA ATTGCTTCAC GCATTTCCCT TCTCTCAAAG ATTGTAAGTT

68701 TGCACTGTTT GCTGTTCAAT ACCTGAAAAT GATTTCTACA AATGTTTTTT

68751 CCAGTTTTAT GATTGTTTTC AATGGGAGAT CATTCTAGT ACCAGTTCCCT

68801 CCATCATGGC CAGAGGTACA AGTTCAACTT GGATCATTTT AAAAATACAA

68851 ACTGGGGCAT GTCACTTCTT GCCCCAAACC CCTTGGTAGC TTTCCATTGC

68901 TCTTAGAATA ACTTTGTGAT CTACAACATC TTCTTCAAGG CCCCGCATGA

68951 TACAAATTCT GACTATTCTT CTAGTTTCTT ATTGCACCAC CTTGTCCCTC

69001 ATCCACCTTT TTTTATGCT TCTCTCTTTC TTTGAACTTC TACCACCAGG

69051 TTTTTTCACA CGTCTTCTT TCCCCATTA CAATGATCCA CCATTCTCTT

69101 TCTTTATCCA CTGTTACTCA TCCTCATAAC TGAACATCA TTTCTAAGG

69151 ATGGCCATTG CTGGTTCAGT CAGTCTATAT TTCATCCCCC ATCACATACT

69201 CTTGTTTTAC CCTATATTTT TCCTTCAAAG CACTTATTTA AGTTGTAATT

69251 ATGTGTTGTT TATTTTATGT CTGTCTGCCC TCACAGAATC CACAGTCCAG

69301 GAGAACAGAA ATCCTGCCTC TTTTATTTAT ACCACATCCA CAGTATTATT

69351 AGTGCTGTCT ACCTAGTAGG TATGCAGTAT GTACCTATTG AATAAATGAA

69401 TTGACTTCTG TCTTTTAGAT CGTCTACTCA TTTTATCATT GATGACAAAC

69451 ATAATACCTT ACATTTCGTG AGTCTTTTTC ACTCCTCAAA GAGGATTTTC

69501 TGCATAGCTC CTCTGAGCCT CACAAAACCC TTTAAGGAAG ATTGTGAATA

69551 TTATCAGATA AAGATTGTGA GACACAGAAA AGCCAGATGA TTTGGCAATG

69601 CTCATAGTAC CAGAGGCAGA AATACAGCTA GAACAGTCTC CTGGCCTCTA

69651 ATCAGAGATT CTTTCCAGAA CACTGCTTCA TCTTCCATTG TCTTGGGTTT

69701 TTTCTATCCT TACTTTATAG GGCAAAATGT GTGCAAGTA TAATCCCCTC

69751 TTTGCAATGT GTTTTATAGT TTTTCAATTG GAATCATGTA GGCTTTTTAT

69801 GCCCTTAATA AATATCAGTG AGCACAAAGG AAGTCTGTG AGGGCTTATA

69851 ATCATTTTGC TCCCATTAAT TCCAACACTG AGCAGTTTCC CCATTTCCAT

69901 TCTTGGCCTT GTGAAGCTCT TTGCTATCCC TGTTAAATC TAAAGTTGCT

69951 TGAACCTTCT TATTGCAAAA ATGCATCTTA AACATTCTAA TACCTCTTTT

70001 TTAATAAAC AATAAAGACT ACGTCAAAAA TCAGCCATCA ATCGAGAAGC

70051 CCTGCAGTCA TTTGTGTGCT GTTGTCCCTA AGTAGAAGTG AATGTGCTGA

70101 GCTCTGCATT CCCCACCTAG CTCTCTGTG ATCAGGGTGG ACATTCCCAG

70151 GACAACCTGG CCGAGGCTGG AAACACCATC TGAATGTCTG ACCACACAAA

70201 GTTGAGTGGC TGATCCAGGT TTAACCTTGA CCTCATCAGC ACCACCTTCT

70251 AAGCAACACT TTGGCTCAGA AGCCAGTTA TTTATTCCAA GGGATGATTG

70301 AATGCAGTGC TAGTGTTTCT TCAGGGCTTT TGAACCTATT TATTATCCCA

70351 GTCATTTATA AAAGATGAAG AGGAGAACAA GGTAGGCCAA AGTGGCTTTG

70401 TACTATTAAA GGCTGCTTGA TTTCTAAGTA CATGTTCTTT GCCACCTTTC

70451 TGCCATTCCA CATTCTAGAA GCCATGGGTA AGTCAGCACA GGGATCTTAA

70501 CATGATAACA TTGGTTTTAG GAGGTCTCGT GCATAATGGA CCAGACTTAG

70551 AGCACAAATG TGTAAAGTAG TGATTTAGGT GAGCAGCAGA TTTCTGGCTT

70601 AGGAGTTTAT TATCAGATGC TTTTAAACG ACTTGTGGCC CAGGATCCCT

70651 GCACCCATGG GAAGCATTGT AGCCTTAGAA CTCTGGGAAT TCTGAATATA

70701 ATTCCTGAAT CAATCGTAAG GATGCATATC TGATGCTTAG TGCAAAACCA

70751 GAGGCAGAA ATTTGCAGGC AGTGTATCCT TGAATAACAA ATCTAGGTCA

70801 TTTCTCTGCC ATGCTTCAAG CTTACTTTTC CATCCTTCTT GATGGTAGTA

70851 CTAACATCAT TTGTAGACCA TTTACGTGGT CAACACTGTG CTAAGCTGTT

70901 AGCTTCATTC TCTATGAGAC AGGCACCTCT AGCCCAACTT TACAATTGGG

70951 AAAACTGAGA CTCAATGAGA TAAAGTAAAT TCTTTACAGT CATTATGCTA

FIGURE 3, page 20 of 61

74551 ACCTCAACGA AAAAAAAAAA GAAGATATAT GGGTATGTGT AGAACTCACA
74601 GAAGGGCAAA CAGGCCCTTA CAGGTGCTGA AAACAGGAAC TGGGAAGTTG
74651 CCAGTACCTT CCTGTCTTTT CCCCTGGAAC CAAACGGTTT CTTACTTGCT
74701 TCTCTCTGCA CTTCTGTCTC ATTTCCCTCT CTCTTCAGAT GATTTTTTCAT
74751 TGTTGCATCA CACACATAGA AAAATCAGGA TCCACCCCTCC CAAGTTTACA
74801 TATCGTTTGT TCAGGCAGCC ATAGTATCCT TAAAACTCCA CATTCCAGGG
74851 AGAAAGCTTG GGTCAAGGAT TCAGCCAAAG GGCAGCGAAA TGGAGTAAAG
74901 ATGCAACTGC CAGGTCTATG GGCAGCAAGG AGGCCGGGAA GGAAGCCGCT
74951 GTTGTGGTCC AAGTGACAA TCAACAGCTC AAAGCATAAG TAAGTTGTGT
75001 GCTTTTCACA GATGGAGAAA CTGAGGCACA GAAGGAACCT GGCTGGGGTC
75051 CAGGTCTCTG GCCTTTGTGT CAATGCTAGG TCACTGGATG TGGCGTCTGA
75101 TTTCTACAGG AAATGTGGTT TCTCTACTTT GTCCCAGAGC CCACTCAGAG
75151 CACTGGCTGG CCAGGGGGTC CTAGGGCCCT CTTAGGATAG TCTCAGGCCA
75201 ACAGCCCCAG CACAGAAGCA ACCAAAGTGA AGTTATGAAA GAAAGCTCTT
75251 TGCTGATCTG TCAATGGCAC CCTTGTAGAG CCAATACTTA GAACACCTGG
75301 ATTTGAATAC TCATCTCCAA AACCTGTGTT CTTTCTACCA CGTGACAAGC
75351 CCTTGTAAC CTCAACAGT CTCTATGAGG TGAGCGCTTG CAGATCCACA
75401 CTTTAGATAA GCAAATGGAG GCTCAGAGGG TAAGCAGCTA GTTCAAGGTT
75451 ATGCACCTGA GCCAGGATGT GGACACAGCT CTGTGTCTGA TTCTAAGGG
75501 CCTGTGCTTT AGCCACTTTG CAATACTGCT GCTGTCTGCT TCATTTCTCTC
75551 ATCTGTCTGA TGGGAACGAT AATACTCAAC TCACATGGAT ACTGTATGAG
75601 GAAAAACAGA TAAAAGAAGA GAAAGTGCTT TGAACAATA AGCAGCCCTG
75651 GCAGATGGGA ATATTTTTTG CTGCTGACAC ACATCCTCAG CCTTGAGGGC
75701 TCTGTGAGC CATAACCAGC TCAGAGCTCT GGAGGCACCT CCTCCCCTATC
75751 AACAGCAGGG GGGACATCT GTCTTCATCC TGAGCAGGCT GACAAACTGA
75801 ACCCCACTCC TCCCTCAATG TCCCCATGCT GGAAGGAGT ATAGCTCATG
75851 CTGTGTTCTG TCTGTTGCT GAGAGAATGC AGAACCAGA ATTTGGGTCT
75901 CAGCAGGTTG GGGAGAAAAG GAAATGTATT TCTTCCCCA AGATTTCTTT
75951 TTGAAATATT TTTATTTGTG GAATCAGATT GTGCATGCAA GTTCTTCCA
76001 GAAATGTAAG ACCTCGTAAT GATGGGAAC GTTGGTTTTA TAATTGAAGG
76051 ATGGGAAAGG AAACGATAT TATGGAGCA CCTGTTCTAT ACCAGGCAGC
76101 TACCAACCA TCAGCCATTG TTGCAATGTT ATGCAAGCTT TATTATCCAC
76151 ATTTACAGT CTGAGTCTGA CTCAGCAATG TTGTGTTCTA TGTGCTAGTT
76201 CCCACAGGTA GGTGGCTGCA GCGCTGGGAT TTGAACCCAT CTCCAAGGCC
76251 TCCATCTTTT TACCACTGCC TCCCATGTT GGGGAGGCCA TGGACTGGCT
76301 GTCAGAGATG TCCTTTCCAG TCTAGCAGAC TAGGAAGCTG CTGGAAGCTA
76351 CTTATGCAAA GGTTCAGCAAG GAAGGAAACA GAGTCAGAAC TAGATGGGGC
76401 TCCCTGGGCC ACTTTTCCAT GCTGGCCAC ATGTCCGGCT AGCAGTCAAC
76451 ATTGGGTCTT ACCTGAGGCC ACCTGTGTTT AATGGAAACA TCCTGGACAC
76501 TGCACAACT AGTGGGAGCC TGTGAGGGA CAGCCTGTCG GGTTCATTGA
76551 GGTTCAGCCC AACTCATGAG CTAGGGCAGG TACCAGAGGG TGTGTTCCAC
76601 CCAATGGGG CAGGTAGGCA GGGGACACAG GCTCCATTTT CATGACCAAA
76651 CACTGAGCA AGAGGCTCTC TGAGCAGTGG CAGAATGGGA AGTGTCAAGA
76701 AGCTTTGTTT GACAATTGAG TCAAGAGGAC AGAAAAGACA GAAAGCAGAC
76751 ATCAGAGTTG GGAAGGCTCA CCCAGCTCC TTGACAAAGG TGCATGAGGC
76801 CAGTTCTTGA AGCAGTGACC CTGCCTTATG TCATGTGTTT ATCAAAGCCG
76851 GCCCATCTT CCTGAAGTGG CCTCTGTGTT TAGAAGAGGG CCTGACATGA
76901 TTCTCTGAGA AAGGATTTGA CAACAACAAA GTGTTGCCGT ATGTGTTGTC
76951 TCATCCCTCT AATAGTCTCT TGAGGTATGT GAGACAGGTG TTACTCTCTC
77001 CACTTGCCAA ATAGGGGAAA GAGGGCCAG AGAAGTGAAG CTGCTTTCCC
77051 AGGACCACAC AGCTGGTAAA CAGTGTCCAT CTCAGCTGTT CTGTCTCCCA
77101 CACCAATATC CCTGTGCACC ACGCAAACAC AAAGACAAC TGGACAACCA
77151 GTCATCTAAT GAGTATGCAT GCTATGTTCT CTCTCATTTT GTCTTTCCAGG
77201 GCTATACCCT AGGAGAGCTA ATCATTCTTG GTTAGATAAG AAATAGCCAA
77251 CACTTCTGCA GCATGGTAGG CCAAATACCA CCAGAATAAA CTCAGACCCA
77301 AAGAGATGCT CAGAATGTGT GGAGTTAATA CTTCACTATA CAGCTCTAAG
77351 GTATAAGCCT TGTCCATCTG TCACATTATG ACATGTGCTT GCTCCCACCT
77401 CAATTCTCTA TTCCACATTA CAACAAATAC AATTTCCAGG TTTGAACTAA
77451 CAATGCCAAT GTTTCTGAAG CCCATATTAA ATGCCAAAT CTGAGTCAGC
77501 TACTGGAGGT AGAGACATGA ATAAGATGGT CCATATTATT TTAGAGGATT
77551 CTTTGGTTGC AAAGGGCAGA CACCCAGCTT GAATTCACCT TGGAGAAATT
77601 GGGATTTTTT TGGCTTGCA TAAAGCAAGCA TGAGAAAGAA AGTTCCAGGG
77651 ATGATGAAA CCAGGAATGC AAATGTCTCC AGAATCTTTT CTTTTTCTT
77701 TTAGGCCATC TTTTTTCTCT CAACTGGTT CCCTCCACTG GGCTGGAGAC
77751 GTTACTACCA GCAGCACTCA GACCCACATC TTCAGTTTAA ATGTGGAAA
77801 TGGACTGTCA GAGAACATTT AGGCCATTCA TTCTGTGGGA GAGATAGGCT
77851 ATGTAAAAAG ATAGCCACTC CCATGTGAAC AATGTGGTTA GGATTAGAGG
77901 CATGAATATA CCCCAAACCA GGGGTGTGGG AAGGAGGTTG AACTCTAGG
77951 TGATAATACC CAGACCTTAA GGAGCTTTCT GTCTAGAGGG AGGTATGGAC
78001 ATGGACAAGT AATCAACAGC TACAAAGCAG AGCTGCCAGC TCTGCAACAC
78051 AAGAGCCCTG AGAGGCATGA CAGGGGCAGG GTGGGGATCC ATGTGGGTCT

FIGURE 3, page 22 of 61

78101 GGATTGAAGT GAGGAGGGGC ATCAGGAAAG CATTCCAGGA GAGCTGAGGG
78151 ACACCTTGAGC ACACCCCTCAA AGAATGACTG GGGGTCATGA GGTATACAAG
78201 GGAGGAAGTG CACCCGAGAC AGAAACAATC ACATAAGCAA AAATGCAGAA
78251 GAATATGAGG ATCGGGGGAAG GGCAAGTAGC TCAGTAGTGT TGGAGGCCAA
78301 GGGACACGAA GGAAGGTGAT AAAGCCCTGA TGTTAAGGAT AGAAAAATCA
78351 AAGTCCTTTG AAAATCATGT GGAGTTAGGA TCTCAAGAAC CCTACAAGGA
78401 TTTCTTTTGA ATAGAATCAA AGAAAAACAA AGTTTACAGT CTGTGAGGGT
78451 TGCATAGGAA GTAACGTGGT GAGAAATGTT GGCTTGAGAA CCACATATCC
78501 ATAACACAAAT GGTGTTTTAG AGGATTTGGG GGAAGGGAGA GAAAACTCA
78551 AATTGTCTCA GTAACATAATG AGCTTTCATG TACATTTAAA ATAGTAATAA
78601 ATGCAATTGT GAGGATGATG GTGAGATGAG CAAAATAATC CAGTTTGTAA
78651 TTGTAGTTAT CAGGCTGGCA TATCCTGCAG GTCACACTTC TAAACATGAC
78701 TTGAAAAAAT CAAAGATCAG CTAAGTTTGA AGTAAGTATT GAAAGAGGGA
78751 GATTATGTTG CCTCAAGTTA AAATAGAACG TAAAAGATGG TGATTCAAAAT
78801 GATCAAAAGC ACCAAGCTTC CCTGTTAGGA TTCAAGGGAG GGGTGCCTGG
78851 CTCCGACACC AGATATCTGC AAAGCAATAT GAAATGAGAT CAATAGTAGA
78901 CATTGAAAGA TTGAAACTGA TATAGGATAT TCAAGTACCA GCTTCAAGAA
78951 AATGAAATGA GACCTAATAA AAGAGAGTAG GAGTCAAGGG GGTATACGAT
79001 ATTAAGAAAA GTGAAGAGCC AGGGTTTGTA GGAAGGAAGG GAGAAGAGGC
79051 AAAGAGAGCA GCTCTTTTAA CACAGGAGCT TCCTCCTTTC CCATTCTCCC
79101 TCCTGCTAAA AGCCGAGTTT GTTTTAGCTG AAATGATTGT AAGACAAATT
79151 TTTATTATTA AAAAAGGAGC TATTTTGTGT TGGTTTCCAT TATAAAATCA
79201 GAGCTCTGCT GCCATAAAAT TAAATCCCAT AATAAAATGA GTAGAAAACG
79251 TGATGTCCTG CAGAAAGGAA GATGGCAGCC CACTCAGTGC CATGCTGGGC
79301 TTGACTATAT ACAAGCCGTG CATCTCCTGC TGCAGTGTGT AGCTGCTGCC
79351 CAGCAGTGCA CATTATCGTT GCAGCTGTTT TCCTCACATT CTGAGGTTTA
79401 TGAAATCCCT CATCCATCAA TAATTGATCT TTAGCTCTTA GTCCAGGGGT
79451 TGTCAACTGG CACTCCATGG ACCTTTAGAG GATTGATGGC TAGGTTTCA
79501 AAGATCTTTT AACCCCTGA AATTATATAC AAAATACTGT GTGTGAGTAT
79551 GTGCATTTTT CTGGTAAGAA GCACCTGAAT TATCGAAGCA GTTTGTGATC
79601 CCCCAAAAAG CTAAGAAGTA CTTCCTAGAG CAAAGGGAGA TTTTGCTACA
79651 CTTAGAGATT TACACATTTG ACCAGGGCAG CTCACACAAG TGGGATGCGG
79701 TTTACATTTT CATGGCAGAT CTGCTTCCAG CTATACAAAT TCATCAAGGA
79751 AATATTGTAA TACTTCTATA TGAATCAGGA ATTCACTATA TTTAACTTAT
79801 TTGGAATAAG AACCACTATA TATATACAAG TTTTCCAAA AGACTGAAGG
79851 TTCTTCTGT GGCAGGAAGG AATATGATTA GATTCATGAA GCGCCTTTAT
79901 GTTTATATTT CAACTCTGAA AGATAATTGT GACTTACTA AATCAAACTT
79951 GTATACCACG ATTAGGAAAA TGTGGACTGA TTTGGGGTTC TAGGGGTAAA
80001 ATGTGACCCG TGTGAAGTAC CAATGCACCG TTCTTTTATC TGTGAACGGG
80051 CACTGAGCTT CTGAAATTAA TTAGTAGGCA GGAGGACATG CGCATATGAC
80101 GTGATAGTTT AAGTACTGAT AATTATTAC TTGGAAGGGA AGAGAATAAA
80151 ATTCAGAAC AAGTATTCCT TAATGGGAAA TCAACTTAGA GGAGGTAGGA
80201 GGGAGATGAA GCAAGAATAT TTCTGGTAAA ACATGCATAA ATCAATGGTC
80251 AGCCAAATGT TTGATCAAAG AAATTATCTT TCGGGGAAAA CAGTAGAAGG
80301 CAATTGAAAA ACAAGCATCA GGCTGCATAA AAACAGCAAA CAAAAGTCAC
80351 AATGGCTTGA TTGTGTGATG AGGTAATTAA TGGCTGCAGT TAGCAAAATA
80401 TGTTCAAAA AAAAGACAGAA AGGGTAGTTA CAGGAGAAAA ACATCCCCGC
80451 AGATCTTCAA AATCAGAAAC AATGAAAATA ATTATTTCAA AAATTAAGAA
80501 AAAAATCTCT TAATTATAC CTGAATTACC TGGATAATTG GTAAAATTTT
80551 CTGCATATAC AAATCTTGGT CCTCTGCTCC TCTCTCTATA AATAAATAGA
80601 AATGTATGAA TCAATAGTCA GCCAATGTGT TGATCAAGAA AATTATCTTT
80651 TGGGGGAAAA TTGGTAGAAG CCAATTAAAA AACAAGCATC ATATTGCATG
80701 AAAACAGCAA ACGGAAGTCA CAATGGCTCG ACGGTGTAAT GAAGCCACAC
80751 AATATGTATT AAACACATCA TCTACACAGA TGGATTCAAA GATACCTTCT
80801 TGTGTCTAA TGCCCAAATC TGTGTTTCCCT GGCTCTGTTC CCTCATATCT
80851 AGTCATTCTC CAAGTCAGCA TGCCCACTT GAAAGTGTCA TTTTCAAAC
80901 CTGCTTCTTC TCTTCTGGAA GTTCTTCTC TGCCCATTCG TCCACAATCC
80951 CCACCTCTTT CACCCAGTAG CAAACCTTAA ATTTATCTTT TACTTTGTCT
81001 TACTTCCCCT TCTTATATT AAAATGTTTC TCACTTGCA CTCTTTTCAT
81051 TCATTTCTATA AGCATTATG AGCTCCTGTT ATGGTTTGGG AACTGTTCTT
81101 CATGCTGGAG GTGGTCTTAT AAACAAGTAA TTCAATTGA GTATTAGTA
81151 TGTTAAGTGC CATCCCAAAG GCAAAACCCA GCTGTGGGAG GCTCCCCAAA
81201 TCAGTCTAAG GAAGTTGGGA AAAGCATCTC AGAGAAGATG GTGCTGAGA
81251 TGGGGAGGAT GTGTGGAAC GGGCAAGGAA GAGAACAAGT AACAACATTC
81301 TAGAAAAAGG CCTCTTTCAG CATGCTAAGA AGTTTGGAGG ACAGAGGAGT
81351 TACCATTCAA AATTTGGAGG GAAGGAAGAG CATACTGAGG TTTGCCACTT
81401 GAACAGATAA TTTAGCTGT GTTGGGTGAG TGAAGTTGAG TGGGTACAAA
81451 TCAGGTCAGG AATATAAGTT AGGAGACTGT TACTAGAATC CAGGCCAGAG
81501 GTGATGGTGG CCAATATATG AGAGTTTTAG CAGGGAATGA AAAAAAGAAA
81551 ATGTGTTTCT GAGGTAGAAG TAGGTAAAAA CAACAGGATC TGGTTCTCTGA
81601 TTGGAATGAG GGGTAGCCTG GAGAGGAAGC CAGAATGCAG GCAAGAATGC

FIGURE 3, page 23 of 61

81651 ATAGTGGTAC CATCCACTGA CATAGGGATT AAAGGAGGAG AAGAAGCTTT
81701 GGTAAAGAAA ATAAGAAGTT CAGCTATGGA ATGTTTGAAT TTGATTCTC
81751 TGATGAGGAG TAGTTCTAGG TGATGATAAT GCTCAGGGTG TAGACTTGAG
81801 AGTGGATGGG TAAAGTAAAG GTTGAGGCTA TTTAAAGGGA AAAGGTCAAG
81851 GAACTGAGGG CCAAGGATTT ATAATAAGTT ATCTTGGGCC ACTAAAGCCA
81901 CGCAGGATGC TGGCAGGAAA CCTATGAGCC AGGTCTTCAA TGTTGAGTCC
81951 AGTGA CTGTCAGAG CAGCAGGAGA AGCATTGATA GCCTGATGGG
82001 GAAGGAGCCG TTACCTGAGA GTAGCAGAGA GAGTTATCCT AGCTGACACA
82051 GCTCTCAGGG ATTTGCTTCT AAAGCAATCC TTAGGAAAGA AAGAGCAGTA
82101 TCCACAGGAG ACTGGTGGGC ACTGGCTTCC CCAGAAAACC TACCTAGATG
82151 AATTCTATT TCAAGGGACT CCTATTTAGA TAAGGGGCTT TGTTAGTTCT
82201 CAGAGCAACA CCAAACAGAT GTATATCTCA TTACTTGCCC CCACAACCTT
82251 TCTGCTCTGG CCACATGGGC CTACCCACTG TCTGCTAAAT GCACTTCATA
82301 TTTTCTTGTT TCAGTGCCTC AGTATTCATA ATCTTCTTTT CCTAATCTCT
82351 GCCCCTCACT TACCTGAATC TTTTGTATTC TCAATGACCT GCTCCATCCC
82401 AGCCCTTTTCA AGAACCTTTA ATACCTACCA AGTGAATACT CTCTCCATTG
82451 ATTACACACT TCCTGTAGCA CCTGTCTTAT AATTATGAAA TATTACCTAT
82501 TGTACACATA TATTTCAATC TCTTGGTGGG CAGAGAATCC AATTTATGCC
82551 TTGTCAATTT GTAGCACATT TCCTTGCATA TGTAGATGCA CCATGAATAT
82601 TTAGAGA ACT TGTTAGTTAA TTTCTGT TTT AACATGGGCT GCAAAGTTCT
82651 GGTCCATGCA CGTCTTTTAT AAAATAGAAA TGACGGATGG TGCATGGAGC
82701 TTAATTTCCA TGAAGCAGAA ACATATGAGA GATGGAGCTG AATTTGTTTG
82751 CCTGTACAGC TCTTACAGCA ATTGCTTCCA ATTTGTTTGA TTTACCTAAG
82801 AGCTAAAATT GTAAATGGCA GCTCAAATGA TTTTCTGTGA CATTCAGAAA
82851 ATGAGTTTGA ATATTTGTTG GAGAGTA ACT GCTTAAGACA TGA AAAAGGG
82901 GGAGATTATA GCTTTTAACT CTTTTTATG GCAGAGCATT AAGGAAAAAA
82951 AAGTGCAGAT AAATGAGATC AAATGGCAAG TGTCTGAACC TGCTGGACAC
83001 AAGTCCCGGT AGCCATTGAT AGACAGTGTT TATATGACTT CTGGGCCATC
83051 AATAGATAGA TAAGGTACAT CAGCGGCCAA TGTTCAGGA AGTTTGAGAA
83101 GATAAATGGA AGTTGCACAG CAGCCTAAAA GCTTCCTTAG GAGGGCTGTG
83151 CTCCTCCAGA CGGCCATCTG CCTGTGTCTT CCTGTCTTTC TTCTTCACAT
83201 TAAATGCTTT TCCTTTTCTC ATTTTATGA TGGTTATCCT AAAGATATGC
83251 TAGCCTGGAC TTTGACAAGG ACATCTGGAG ATAAGAAAAGA TTCTGAATTA
83301 TTTTCCCTT TGGGCAATTG TAGCAATTTT AAACTATGT TAGATGGCTA
83351 GAGATTCTTG AGAATATTTT TTTTCTGGA AAATCATAAG GCTTTGGATA
83401 GTGGTACCTA TAGAAGCTGA CATCAGCAGC AGCCTGCCTC CAGTCGATCA
83451 GGGCCTTTGG AACTTCACGG GGCTCCTCTA CTGACAGCCC CATCGGTTTC
83501 CCTCCAGCAC ACGTAAC TCA GCATTGACTC TGGGTAGTAG AGGGTGGTTT
83551 ATGGAATCTG ATTCACTCTCA GAAAGAGGTG GATGCAAAACA CATTTCCAGA
83601 GCAGAAGGCT TGGCATGTCT GGTCTTAGGC AGAGGGA ACT GGAGATACTT
83651 GTCCTATTGT TCTTGAGATT CCAGCAAAAA TAGCCCATTA CAGAGGAAGA
83701 AGATATCAGG TCAAATGAAG GCTTTGGTGC TACAACATTG TCTTAGAAAA
83751 AAAAAAGAAAG AATTTGGCCA AGTGCACTGG CTCAGCACTT TGGGAGGCTG
83801 AGGGGGGCG ACCACTTGAG ATCAGGAGTT CGAGACCAGC CTGGCCAACA
83851 TGGCGAAACT CCGTCTCTAC CAAAAAGTAT TAAAAAATAG CCGAGTGTGG
83901 TGGCGGGCTC CTGTAATCCC AGCTACTCGG GAGGCTGAGG CCGGAGAATC
83951 ACTTGAACCT GGGAGGCGGA GGTGCACTG AGCCAAGATC GTGCCATTGC
84001 ACTCCAGCCT GGGCAACAGA GTGAGACTCC ATCTCAAAAA AAAAAAATG
84051 GAAAAAGAA AAGAAAAA GAAAGAAAG AAATTAATTT AAAAAAATG
84101 TTTTTTAAAC AAGGAAGGC TTTGGGCTTG GAGTCCAATT AAGCTAGGCT
84151 GGAATCCCGG TTTCATCTCG CTTCTCTGTG CAACTTTGGA TTTTACTGAA
84201 TCTCTCTTAT TCTCAATTCC CTCCTCTGTA AAATGAAGAT AATGCTAGTA
84251 CCTGTCTCAT CAAGTTGAAG GAGACTTAAA TGAGATGTGT TGAAAGCATT
84301 TAGCATAGTA TGTGGCACAT AAAGAACACT CAATAAATGC TGGCTATAAA
84351 GAAGCCAGAG AGAGACTCGG AGGTGATGAG AGAGGCCACA ATTCCCTCCA
84401 TTTCATTGAA AAGCAATTTT TATTATCTCA TTTGAAAGGC AGTATAGTAT
84451 AGTGGTTAAG GACATGCACT ATGGAGCTAG ACCTCCTCAG TTCACTTTCT
84501 GTCTCTATCA TTTATTAGCT GTGACTTAAC CTTCTTGTC CTCAGTTTTT
84551 ATCATTTTTG AGAGAGGAGT AATAATAGTT CCTACTCTGG TGTGTTGTGG
84601 AGATTTGATG AGTTAATACA TATAAAGCAC ACATAGTAGT GCCTGGAGCA
84651 TATTAATGA CATGTAAGTA TTAGCTGTTA TTTTATTAAA CAACATGTGG
84701 CATAGGACAT ATTGGA ACTT TGAAGTCTTT GAGGCTCTTC CCAGTTTCAT
84751 AAATCAGAGA CTACAGTATA AATATCTGCT TACATGTCTG CTTTCCCAT
84801 TGGACTGCGA AATCTTGA AA CTGTTTTATT CATCTCTGCA TAGCGTTGGC
84851 ATCGTATTAT GATACCTGAC ATTTACCAGG TGCCAAATGG GACTGGGCAT
84901 GTTGTAGGGA TTCAGTCAAT GTGGGTCAAT GCAGGCGGGG AGGTGGGTCG
84951 GGTAAAGGT AAGAGAAGG CCTTGGGGCA TCACATTAAG TAGTTACCAG
85001 ATTGAAC TGC AAACATTGCT ATCCAGGAGA AATCAGGTCA ATATTTCCAC
85051 TTCTATGGCAA TACCAGTACA GTCCAAGGAG AATGCATAGA AGGAAAGAAA
85101 TCATAATCTG ATTGTATGTG TTTTTTTAGT AGTAAATAAT AATAATTATT
85151 ACTATTCCCTA TACAATTTTG TGTGTTGGTG TGTTTTGTTT TGTGTTGCAT

FIGURE 3, page 24 of 61

85201 GAAAAATGGG GTGCTAATCT ATTCCCCTTC CCAACACCAG TGCTCAGAAG
85251 AAATTTCCAC AGATAGAGAA GCTATAGGTT ATGAATTGGG CCTTGATGGA
85301 TTCTGGGTCA CTATTCTCA ATGTTTGTC ATGTCATGTG AAGCTCTTAA
85351 GATAAAGAAC AATGTCTTAC TCGTCTTTT AACTTCTTTA CCCCCTAATG
85401 CCTATCACAT ACTTTGCCCC TGGAACTCA ATAGACATTT GTAATGGAA
85451 TTTAATTCTT GAGGTCCAGT AAAGCCTTTT TCCATCCTTC CCCTACTACA
85501 CAGTTTGTCT AACCATGTCT TCCCTTCCAT CATCCACCTT ATAAACGTTA
85551 TTACTCATTC TTCCATCACA TTCTTGACAC CTCCCATGTC CAATGTCAAA
85601 CAAGTACCAT TTGGGAAACA GAATTCTAGG AATCTGGAGA CCTAGAGCTC
85651 TTCAGACCCT GAAATCCAGT TTTCTGAGCT GAGACAGTTT CTTAATTTCT
85701 CACTCCAAC TCGTTTCTCC TCTTTCTCAA TGGATATTTT CCAAGTCTCC
85751 ATTAGGCATA TAGCAATTCC AGAAAACATT CAATTTTCCC TTCTCTTAAT
85801 GCCATGTCTC AAAACACCAC ATTCCCTCTA GACATTGAGC ATTGGAGAGA
85851 GATGGAAGAA TACTTTGAAA ATGTGTGCAT GTGAGAAAAA TGCTAAGTGT
85901 TCTGTCTGGT CACTTCAATG ACAAGTTTGC TACTTTAGAA ACTTGACTAA
85951 ACAGAGTGTG AGGAAAAACA TGAAAGAAA AAAATGTGTT CAGCTTGGCT
86001 GAATAATGAC CAGCAGGGTG AAAAGATAAG ATAACCACCC GCTCACAGGA
86051 TTTCTATCCT CAAGCCCTAG AAGGTTGACA ACAGCAGACA CTGAACTAC
86101 TCTTAATGGA GGGTGTGCTA AAGAAGCAAC ATTATAGCCG CTTTATAGAA
86151 AGCAAATAGG AAAGTTGGTG AAATAGAGAA GATGCCTAAG CATGTGAGAT
86201 ACCACCTCCA TCTTGAAAAA TAACCAAGGT GATACAATGT TATGCAGGAC
86251 CCCTTAATTA AAACAGATTT AGTGATTAAT ATCAGGAGCA TTGTCAAGAA
86301 TCACAACAAC AGCAATTAGT TACTATTGAG CAATTTCTGC TAAGTAATTT
86351 GCAGGAGGGC ATCTCACTTA ATTATCACAT CCTTTTATAG ATGAGAAATAT
86401 AGAGGCTTAA AAAGGTGCTT TTCCAATGT TATTCAGCTA TAAGTGGTCA
86451 GTCATGACTC AAACATAGGT CAACCTGACA ACAAGATCTT CACTCTTAAC
86501 TTTCTTTCTG TTTGTGTAATA CCTTGTATCC ATGGAATGG ACCATCTTCA
86551 TATACTGCTT TTTTGCCTCT GGAATGTCCA GGTATGGATT GGGTAATGCT
86601 CAAAGACAGA GAGGAATAGA GTATTAAAAA GATCCCTGGC CTCATTTTCT
86651 GAAGACATGA GCCTAAGCTG AGCTGTACCA TTTACCATCT ATGTGAACCT
86701 GGGCAGATTT TTTGACACTG CTGGGTCTCA ATTCTGTAA CTGTCAAGTG
86751 GAAGTGAGCC TAACTGCATA GACTTCACTG GGCTGTAAAG AGAATAAAAT
86801 GAAATAACTG TAAACAGAAG TGCCTAGTGC ACATGCAAG GATTATTTGG
86851 GCTTTCTACC CTTTCAGGGT TAGAAGTTGA TAGTAGGCAA CAAGTTATAA
86901 GAAATACAGT CAATTGTCTG CTGACCAGGG CTAGAGTTAA TTGTCTCTGG
86951 AAAAAAGGAC TTGCCTCTCT TTCTCTTCTT CCTCCAAAAC TTAAGACGTT
87001 TGCAGCTGAA TCCCAACAG GATTTTGTGT TCCTTTGGGA GAGAGGAAAC
87051 AGACCAATAT ACCCCCAAAA CTAACCCCAT AATTTTCAAT CAGCAGTAAA
87101 GTGAGGTCTG GTATAACTGC CCTGCCCCAC CTGCAGGGTG GTTGGGAAAC
87151 TCTGAATGGT CATGCATGGG GAAGCATTGT GTCCACTGTA AAGAGCTCTC
87201 CGGAGATGAT AAATCTCATC AGAAGGCTTC ATGCTTGAGG CATGGATTCT
87251 TGGAAAAACA ATCACTCTAC GTATGTGGTC AGAATCTAAA GGAGATGCTG
87301 GGGAGAGGAG CTAGGTCACT CTCCAAGTG GAACAGTAGA AACTAATCAT
87351 GTGGAGCCTA AACTTATGAA GGTTTTAAAA ATCAGAATTG GCCACCTTCC
87401 TTTGGACCAT GAGCTCAGAT TGTGAGGTGT GACTAGGTCA CGTCTCCTTC
87451 CTGCCCTCTG TTCCCTCCTC TCCCTACCTG TCCCTCCTTG ACCCCAGGAA
87501 AAATTGCCCG GTATGAAAG TTAATTATGA CCCAAGGGAA TTGGTACAGA
87551 TGGGAAGAA AGAAATGCAT TCAAGAGCAT TTCCATCAGT ATTGAAATTA
87601 CACAGAAGGC TGGTGAATTT GGGCTATCCA TTCTTGCCCT CCTCTGTGCC
87651 CATAATTCCT TGGCCTCCTT CAATTTTCAAT TTCCCTTTGG TTCAGAGGAA
87701 TGCTTGATGG TTTAAGCTAG CCTCAGTTGG CCAAGCATTG GAGAAACAGA
87751 GAGGTGTATG ACACAGCTAC ACTCCCATGG GGCTTACAGG GCAAGGTGAG
87801 AGAAGACAGA AGTTGTATGT GCTGGGTGCC ACGTGGTAGC TACAAACTAG
87851 AAATGAGACC AGGTTCCGGA GAGGAAGAGG GCTTGCAGAC CTGAGTCATG
87901 GGGACAGTTT CTTCAGGAAA TGGGATCTCA GCTCTGCCTT GTATGCAGGG
87951 CTTACATAAT AAATATGTTT CATTGTTGTT GTTGTATTG TTGATTTAAT
88001 AAGATTTTGT TTTAAGAAGA TTTTGTAAAA ACAACTGAAC AAATGCAATC
88051 TCCTGCCAG GCAGGCAGCA GCAAAGGAGA TTAGGAATAT AACCCCTTG
88101 GAGACGTTC TTCACCTACC TGGTGCTGGA TTACCTAAAA GCTTCAGCTA
88151 AGTAGGGTCA CCCCCCAAG AAATTATTTT AAAAAAATTG AAATCTGATA
88201 TTTTATAGAA ATCTTATCAA GGATATTAA TTGGACTATT TACACCTATT
88251 TAGGGTCAGT CGGTTTGGGA CAAGTATGCA GGGGTCTTGG AATCAGACCA
88301 CTGGGGTCAA ATCTAGTTC TGTCACCTCC TAGCTGGGTG ACCTTGGACA
88351 AAGTTACCTG ACTTCTAATA GCTTCAGATT CCTCATGGGC AAAATAGAAA
88401 TGCTACTAGT ACTTAATAGT GCTCTGAGAA GGATTCAATG AGAAGGATTA
88451 AATGTATGTA AAGCACAGTG TTTGCCCAT GGAAGCTGTT ATTTATAAGG
88501 GAGGGGAGCA CCTTAAGTTC CTCCGAATTT AGGAGAACTA AAAATCTTAC
88551 ACTGACTTCT CCCTTCAACA GCACCTTCAG AATCTCCTTC ATTTTTCATA
88601 CTGTTCTTTC AACCTTTTGA TGAATGAGAA ATTAGGCATT CTTTCCCTGC
88651 AGATTTTCCC AAACCTTCTG CTTTGGCCAA TAAACATATT TTTAGTCCCA
88701 ATCTTGACATG CTCCTTTGGG ACTTTTCATC TGATAAACAT CCCCTCCTGT

FIGURE 3, page 25 of 61

88751 GCTCTTGAAT CCAATACCCCT TCTTCCCTGC CCTCCACCCA GAGTCTCCTT
88801 GTATCTGCTG TTAGGCACAA TGATGACCCC ACCAAGGTCA GACAATGGCT
88851 GTGGCCTCAC CTGGACCTTG ATGACCCACA TAGCCTAGAG CCCAGAGATC
88901 AGCCACTGAT GGAGGCCAG AGGGCAGTTG GAAAACCTCA CAAGACAATC
88951 CAGCCTGATT GTTTTGACAT GCCTGACTTC AGGCTGCTAA AAATGAGCTC
89001 GAGGAATCAG ATAGGAAAAA GAGATAGGTG ATGCAATTTT ATTCCATCTC
89051 CCAATTTTCT GAGTCAAGAG TTGTTTGTTC AACTCCAGTT AAATTAGTAT
89101 TTATCCAAAT TTCTGGGTG CTTGTCCAAA GAAAAGTACC CCAGATCTAC
89151 AAATTAGAAT CTGGGACTGG GACTTAGGAA TTGGCACTTT TACAATTATA
89201 CCAGATGTTT CTAATATGAG TACTTCAACC ACTACCTTA TAGAAGTGCT
89251 GCCTAGGACC CTCTCTTCTG GCAGGTGAAG TGAAGGAGG TTTTGTGCGA
89301 GGGAGATTCT CCACTTCAAC TTGAGTGTCT TGGCTTGAT CCGCTTTGTT
89351 TGGTTCTATT TCACCAAAGG CTTTCATCTT CACATAAATT TTCTTCAGCT
89401 TTAAATAATT AGTTTGTGTA ACCATTGGTA TACTGGAAG AACATTAGAT
89451 TTGGAGTCCA GGTGGCTTGA GTTCAATTCT CTGCTCTGCC ATTTACCAGC
89501 TGTGTGACAT TGGGCAAGTT GCCAACCTAT CTATGTCATT TCCTCATGTA
89551 AAGATAATCC CACTTCACCA GGCCACTTTT GAGGACCCAG TGAATGATG
89601 TGTAACCATT TTAGGAACAC TGGATCATT TACAGTGCAA TTTTTCAT
89651 CAGCTTGGAG CCTACCATGT AGGCATTCAA ATCCACTGAG TGTATGGAGC
89701 TCCGTGCACA AATAAAAGGA CTTCTCTTTT CTGCCCGTGT ACAACTTTGG
89751 TTTCTTAAAT CAATAGAATC CATGACAATC CTGGGCCATG GTATAAAGAT
89801 GGGACTTTCT TCCTGTGAAG GAGTCTGGTC TGAACATCTT CCAAACCTCA
89851 ACATAACTGA TGTCAATTCT CCACCAACC CCATTGCTG TCTCCTGACT
89901 CAATTGCTAG AGAAGCCACT TAAGGAAGGT TCCTGGAGTT AAGGCTGTGT
89951 CTGGGCCAGT GTAGCGAGCA GTTTTCAACA GTCAGTCTCT TTTATCTTCT
90001 CTTTTCTTGC GAGCCTTTAC TAAGCACTGC CTCCTCCTGT CTCCTTACTG
90051 CATCTCCTGA TGGAAATGCAC AGGTAAATCT CCTTGGAGAG TACCAGCCAG
90101 GAACAGTCCA CAGCCAAGGC CACCGATCCT CACCGCTGAG CTCCATCTTT
90151 CCTTTCAGC TGTCTTCCC CTCCCCCTCC CACCATCACC ATAGCAACAC
90201 AGTGGTATAA AAAAATGAAA GCGCTAAGGC ATCTAAATAT AGTCTGAGTA
90251 TCAACTCTTC CAGCATGGAG CCGAAAACCT AGGGAATGAC AGCTAGAGGC
90301 ATCCAGACGA TAACTGGCAG CCAGGAGGGT GGATAAGTCA AAGGAAGGGG
90351 TCAAGGAAAG AGGGGAAGGA AAGGGAACCA TCACCTGCTG AGCCTGCTGC
90401 CTGTGCTTTC TCATGTCACC CGCAGGACAA CCCAATGTGA ATGTTATCAT
90451 CTCCAGGTAA CTGCTGAAGA AACGGAAGCT CAAAGAGGTA AGAGATTGG
90501 CCAAGGTCAC ACAGCTATAA GCAGTAGAAC TAAGATTTTA ACTCAAGTTT
90551 CTATGGCCCC AGAATTTATG TGTTTCTCTC TCCATACCAC AGGGACAGGT
90601 GCAAGTGAGA GATTTTGCTG GAAGCACTGG GCTTTTGGAG CAGGCCATAT
90651 AAAAATTCTC AGCCAGAGC TCAACTAAAT TATTGGAAGA GACTGGGCCA
90701 AATATAAGGC TTCTATCTAA GCAGCACCTG TGTTTCTCAA GGACTGAGGA
90751 AAATGAAGGG GGAGGGTTGG CAAGGCTGCA TTTCCAGGG TGCGTGATTA
90801 TATGGCATGG GGGTGGGGGC CATTATGATG CCCGGACATG GAACTTACAC
90851 CAGTGCAGAA AGGGTGTGAT TAGAAGCCCT AAGCCAGAGA ATGTTCAGTG
90901 TGATAAATGC CATTATTTTT TCCCTCATTC ATTCAATAGA TTTTTTTTTT
90951 AGATGGAGTC TCACTCTGTC GCCCAGGCTG GAGTGCAGTG GCACCATCTC
91001 AGCTCACGGT AACCTCTGCC TCCTGGGTTT AAGCAATTCT TGTGGTCCAG
91051 CTTCTGTAGT AGCTGGGATT ACAGATGTGC ACCACCACGC CTGGCTGATT
91101 TTTTTTTTTT TTTTTTTTTT TGTATTTTTT AGTAGAGACA GGGTTTCACC
91151 ATGTTGGCCA GGCTGGTCTC GAACTCTCTG CCCCAGTGA TCCACCCACC
91201 TCCACATCCC AAAGTGCTGG GGTACAGGT GTGAGCTACC GTGCCTAGCC
91251 TCATTCAACG GATATTTTTA TTAAGCATCT GATGTGTGCT TAACTCTGGA
91301 AATATAGGGG TGATTAGAAC AAATGCAGCT CCTGCCCTTG TAGAGCTTAT
91351 TAGGATAGTG GAGAAGACAA ATAAGGAAAC AATTATACAA TTGATTGATT
91401 CTTTACAAC GTACATGTA CTATAAGTAC ATAACAGAAG AATATCACTT
91451 GCCTGTATGAC TTCAGTGAAG GGGAAATACA GAAGTCTTTA CAATCAAAG
91501 CAATCCCCTG GGCCAATTGT AAAGGTGATG CCCACTTTCA AGGTGGACAG
91551 AGACTGTGCT AGAAGCTTAG CCTCAACCAT GGGTTTATAT GATTGGTAGA
91601 CCCTGCAGAT CCATTCCCAA TGGTGTATCT TCATACTAAT CATGAAATCC
91651 ATCTAATAGC CATACAAGTG AGGTTTTAAA ACCCAACAAA CTAGACTCAA
91701 ATGAAATCTG ATGAGGGAAT TTATGATTG TTCTTCTTAC AGCCTTTGGT
91751 ATCACTGACA TAAACTGAA TGTATGTGCT GAGGGTGCTT GTGTCTTGGT
91801 GATAGACAAG GTAGGTGGTC CAGCCCATGG TACTGGCAGC TTAAAGTCAG
91851 CCAGCCATAG GTGGGAAGTG CCTGTGAATT ATGCAAGAGT GGGAGGGGAG
91901 GGAGTAGGCA GTAAAGTAAT GCATTTCTGT GGATCCAAAG CTTTCCAAAC
91951 TACCTGCAAG TCAGCAAATA TGGGGGATGT TGTATGACTA AGTGAGAATC
92001 AGATAATATA ATGTGTATGG AGCTCTTTAG TTCTTCAGAA AAAAATGCTG
92051 TCTAAACAAA TAGTGCTGAT ATCAAAGATA ATGATACAGT ACCCTAATTT
92101 TAATGCTCTG CTACCTACCT GCCAGCTGTT TCCCAGGGAT GTGGTAAAGA
92151 TGAATGGGCA AGATCTGGGA AAGTGTTTTG AAATCCTTGA TTAAAGGCC
92201 TCCAGGCAGA TGTAAGATTT TAAATGTGTT ATATTACTGC CACTATTGTT
92251 ATGCTTTCTT TTATCACCCC AGAATTTTAC CATCTCCTGT TTCAGGTGAA

FIGURE 3, page 26 of 61

92301 CGAGTCTGCC TGA CTCTTAC CTGCCCTGAA TGGCATTGGA AAGGTAGCAG
92351 CCCTGAGATG TGCCATATAA ACAAACATGT TTTTAACCAA GGGATCAGGA
92401 GGCCTTCCTG GCTGGCTCCT GTCAGCTGGT CATCACCTCT CTATACTCT
92451 AGGCTTTCCC AAGCTTATTT TATTTCCATC AATAGGACAG GAATATGTAA
92501 ATGTCCTGCT TGAATGAGT ATTGGCTACA AGCCATCTGC CTCTGAACAG
92551 AGGTGAAAAG TGGAAATCGG AGGAAGGGCA GATGTCTTTT GCAAGGGAAA
92601 CAGACTGTTT TCTGCCACTG CACTCTGCCC AGGCAAAAGA GTAAAGGAAC
92651 AGCACTCAGG AGAATTCACT GAAGCGAGGG CAGGGTGCAA AAGGAACCTG
92701 AGAAATTGGT ACTGGGACCC AAAATCAGAT TCTGGCATT TCTGGGAAAAG
92751 AAATGGGCAT GGGTGGGGGT TTTATCTGTC AATAAAAGCA TCCAGAATGG
92801 GGCTAGAAGG AAGTAAATTC AGTTGCCACC TCTGCCTACT GGACAGCCAC
92851 GGAGAACTTC TCCTTATCCA AGGTGAGGA GCCCTCCGGA GTACATACTG
92901 ATACCATTGG TTCTCCACCA CATACCCCA TGGAGATAAA AACAGGACCC
92951 TGGAGCCCT GTCCGTGTTT AACCAATGGG ATTGAAACAT GGAATGAAC
93001 TGCCCCACAA TCCACCTGT GAGAGACCAA AGAGCAGTGT TGGATTAACA
93051 GGGAAATGTTA CCCTGAAAAG GCATTCACT TCCACTGGGG CAGCAGGTAC
93101 AGTGCAAGA TGATCCCACT TAAATTCCTA AGACAGGAAA TAAGGAAAAG
93151 TGTGTGGAA ACTCAAGACC TCTCAAAGCA TACTCCTTTG TAGTCTCTCC
93201 GCAGACCAGA CCACGGAATT CAGAAAACAC CCTACCTGGT TCCAAACCAG
93251 CACCTGCCAA ACTTCTCACC CTCTTCTGAC CCTGCTCTGG GAGTTAAGAA
93301 AAAAAAATC ACTTTATTGG TTGCTCCAGT TATAACTTAA ACAGACAGAC
93351 CATCATCAA TTAAGTGACA TGTACGACTG CTTATTGTAT GCCAGTTACT
93401 GTGCTGTGGG GTTTTGGTTC CATTATCTCA TTTAATCCTC TCAAAAACCC
93451 TGTTAGGTAG GTTTTATTAT TGCACATC TTAGATTAAG GAACTGAGG
93501 CTCATAGAGA TTCGGTAATT TGTCAAAAGC CCTAAACAT AATTACTGCC
93551 TCCAGATGTC TCTGATTCTA AGGCCAGGC TCTTAATCAG TAAATGATCA
93601 AATGAATAAT GATTTTCATG GCATCTGTCA TCGGAAAAGAA CAATGGAGAA
93651 TATGCTTAAC CAAAGTCATA ACCAAATAAA TGAACCTGAC AGCAGAGCCG
93701 TGATTCTAGC CAAGATGACT ATTTTCATGC ATGTTTGTAA GGCCAGGAAA
93751 AGGAGGTTAG ACTTGTGTTG GAAGGGAAC AGGAGCTATC AAGGTGAAC
93801 TTTCTTAAGA GTAGCCCAAT AATAGTGCTC GGGAGGGAGT AATGTGTGCA
93851 AGAATAGAGT CAGGGAGACC AGCCAAGTGT GTGCCTCAGC ATCCCTAGCA
93901 CAAATCACAC ACTAAGCATT AAGATTGTCT CTGCAGTGAG AAAGGCCTGG
93951 GACCAAAATTT GGGCTCCACC ACTTACTGGT ATTCATTAAT CATTCTATGCA
94001 TTCATTCAAG AAATATATAT TGCGTGTGGT CTATGTGCCA GAGACTGTGC
94051 TGGGTGCTGG CAAAGAACAC AGACAAGGTT CCTGCTCTCA TGGAGCTTTT
94101 ATTCTGATGA AGGAAACAGA CCCTTACAG ATAAATAAAT AAACAAGATA
94151 AAGGGAACAA GATATGATGG AGAGTAGCTG GAGGGCCAAG CAGACCGGGC
94201 AGACAAGGTG GTGGCATGTA AGCTAAGACA TTTAAAAGAA ACCTGGTCAT
94251 GAGACTATCT GGAGAAGGAA AGCTCCAGGC AGAGGAAGCA GGTAGTGCAG
94301 AGGCCCTGAG GCAGGAATGA GGACAAGATA TTTGAGAAAA CAGAACAAAG
94351 GCAGGCATGA CCAGGCCGAG TGGGTGGTGG AAAAGTAGTA GAAGGTGAGT
94401 GGGGGAGTGG GGGCATCAAG GTCAGGCTTT GCAGGCTTGA TCAGCGTTCT
94451 CACTGTGGTT CTGGAGCCAG CAGCATCAAT GTTACCTGGG AACTTGTTAG
94501 GAATGCAAA TCTCAGGCCC CACCCAGACC TGCTGAGTCA CAACTCTGG
94551 GATGGGGCAC CTCATTGTGT TTTATCGAGC CCTCCAGATG ATTCCGAGTA
94601 TGCTAAAGTT TCAGAATTCC TAGGTTGGAT TATGCAGTTC AATTTTAATT
94651 TTAAATGCAA TGGGAACCTA TGAAAGATTT AAGTAGGGGA GCAGCATGTT
94701 ATAATTTCT TTAATAAATT GTTTTAAAGC ACTCCTGCTG AGGAGAGAAT
94751 GGACCATAAC AGGCTAAGAG AAATGGAAGC AGGGAGATAA ATTAGTGGT
94801 TATTGCAAGA GGCCAGGTAA GAAGAGAAAG TGGTTTAAAT AGGGTGGTGT
94851 GGCAGAGAAG ACGGTTCCAA GCAGAGGGGG ACCACGCTGA CAAATAAGCG
94901 CGGGCCACTC ACGCAAGCCC AACAAGGCAG AAGGCAGAAG GCAAAAGTGA
94951 AGGCCAGAGA AAACCTGGACA CCACCTTTCC AGAGCACAGT TCAAAGGCAA
95001 TGTCTCTAAA GAAGACACTC CACCTCTCTC CCATTTCTCT CCTATTGCC
95051 AAAAAATAAGA AGGATACGCG GCCTATGGCA AACCTTGGGC AGGCACGTGG
95101 GAGCTGAGCT CTTGCAAGG GCAGATAGTT CCTCTGGTGA GAGAGAAAAG
95151 GAAGGGCCAG TGAGGAGTGA AGGAAGAGAC GAACAGAGAG CCCGAAAGGC
95201 TGAGAACGTT GTCTGGCTTC CTGAAAGGCT TAAGGGGTTA GCTCTGGAGG
95251 GTGAACATAA AGCCCTAGTT ATATTAAACA CACACGCACA CACGCACGCA
95301 CACACATGCG CGCACACACA CACACACATA CACACAGTTG AAGGAGACCT
95351 GCAGTTTCCA AAAACAAGAG TTGTATTTTT TTTGTTTATA TCATGACCCA
95401 TAACAATCTC AAAAGAGAAA CAATCTCTTG TCTCTCTTGT TTAGGCTTAG
95451 GAGAACCTGT AGTAAGTAAG CAGCAGCAGC GGAACATAA CTCGACTCTT
95501 CCTACTGTCA TTCTCTCTAT TACACCACAA GGCATCAGAG GACCACTAGA
95551 GTCGCTCCC TAGGGTTAGG GTTAGGGCAA GGTAAATGAA GTGAGTCAGC
95601 AAGGGCAGGA TAGGAACCTG TCTTTATTAA CATTTTGATA TTTTGTAT
95651 CATGGATTGG TTGCATTAAT TGCAACTTTT AAAAATCATT GCATTAAAT
95701 ATTATTGATC TTGATTACTG AGTTTTTAGG TGTACCCTTA AATGTTGCAC
95751 CTCTGACTTA CTAGTCTCAC CCTGATCCCT GTCCTGGATC TATGCCTGTC
95801 TGTCTATAT CAGCCTCTTG CTTTGACCAT AAGAATAACT TCAGACCTTT

FIGURE 3, page 27 of 61

95851 AAGCATAGAG GAAATAGGAT TTCTGTCTCC CTTCCCCACC TTTGTGATAA
95901 TCTCAGCTTC TGCTTTTAAA GTCTATCTCC CAAGTAGTTT GCCTACTATG
95951 TTCCTCCCAA GGTCACTAGG TTCTGTGAAA CTAGCAGCAG GCTAGATTGT
96001 CACATTAGCA CAAAGGATCC ACTATTCCTG CAGCCGAGCT GGGACAAGCA
96051 CTTAGGCCCA CTGACTCCAA CCCTTCAATA GCCTGGGACC TACGTTGTCT
96101 CCAGGTGGTA TAAAACAAGA ATTTCCCTT TGACTGGGAG AAAAAAGGAA
96151 GAACTCTAAA TTGGAAAACA GGTCATCTCG AATTCTCACA GGTGGAAATT
96201 TCTGACAACC CCTTTGGGAC CCACAATTCA ACACACCCCA AATGGGGACA
96251 GTAGCTAACA TGCAACCTGT AGGCTGTTCT GTCATCCAGT GCCACTGTGC
96301 TGCACACCAC CAGGGGGCAG CATTCTCATT GGCTTCTATG TGCCTGGAGC
96351 CCAGTGCAGT GTGCAACAC TGCAGCTTTG CTTTAGTGTA GTCCCTGATG
96401 GGTTCAGTCA AGAAAATGTC TATAGAATCA GCTAATCTCC CATGCAGTTA
96451 AGTCTCTAAT TGAAATATTT TCTCTGCTCA GCCCAGGGAC AGCAATCTTT
96501 CCTGGATTTC CTATTTACAA GGATCTCTAG AAATATATCA CCAGAAATAT
96551 GGGCTTTCTC AGAGCTTGAG TGGACAGGGA ATTAAGGTGG AAGGCAGGGC
96601 GTTTTGACTG CATTTGACCC AAGTCCTGAA GAGCCAGCTC CTCTCTCTTC
96651 CTAATTATTA GAAGGTTTGT TTTGGACCCA GTGTTTCACG TGTATACAAT
96701 ACAAACCTCT CTCTTTTCTA CTTGGATCAA ATTTGTTCTC TCAAAATAAG
96751 ATTCCCAGCA GTGAGAGAAG ACAAGACAGA GAGATCCAAC ATCTCTAAAG
96801 CCATGAATCA GATAACCAGC CACTTGTCTT CTTAGTGTCT GGGAACAGAT
96851 ACACGTGTTAA ATAAAATGAT TTTATAGATT CTTCTCACTG CCTTTCCAAG
96901 AAGGGGATTT ATCAACTTCA GGGCACAGCA ATCATTATAT CCCAGACTAC
96951 TGGCATGCAT ATATATATAT ATTTACTTCT CTTGACTTAG AAAAAAGAGA
97001 GAATTGGAGT TGTGAATATT CCTGTCTCCC TCACCCAGC CCCCTTGAAG
97051 TGAGTCAGGA CAAACTTGGG GCCCAAATGG AGCTGTAAGT AACTGAGTCA
97101 CATGCAGAGA TGAACCTTC ACAGACCCAC TGATATGGAG GTTGAAGATT
97151 AAATTCCCTT TTGAGAATAA CTGGGTAACA CTCATACAGA GACTACTTTC
97201 AAGAAGGCCA GATCCTCCCT CTAATGTATA GTGCAACGTT CCTAACCCTC
97251 AGCCCACTCC GTCATACCCC CACTCACATG AATACACACA TAAGCAGTAA
97301 TATAAAGCAC TTCCCACCAT AGGGCAGCAA AGAAGGAGGG AAATCTTTAT
97351 TATGGAAGAG TGGAGGAAG GAAGGGAAGG GAAGGGAAGG GAAGGGTAAG
97401 AGGAAGAATT CTCAGGCTGA GCAGAGGAAT GACATGTTTG GGCATAATG
97451 AAGATAATTG AAGTGCAGAG TTTGTATGGA AAAATTTGAA ATATACAGT
97501 GGCAGGCCAG GCATGGTAGC TCATGCCTGT AATCCCAGCA CTTTGGGAGG
97551 CCAAGCAGG CGGATCACCT GAGGTACGGA GTTTGAGACT AGCCGGGCCA
97601 ACATGGCAAA ACCCCATCTC GACTAAAAAT ACAAATAA GCTGGGTTTA
97651 GTGGCGCATG CCTGTAATCC CAGCTACTCG GGAGGCTGAG GCAGGAGAT
97701 CATTTGAGCC TGGGAGGCAA AGGTTGCAGT GAGTCGAGAT CATGCTACTA
97751 CACTTCAGC TGGGTGAGAG AGCTTTCTTT TTTTCTCTC ACAAATAAAG
97801 AAAAGTTTCA GTTGCAGAGA TGGATGGATG GATGGATGGA TGGATGGATG
97851 GACGGATAGA TAGACATTAC AGAGAGTTTC CAATTCCTAG GATGAATTGG
97901 AATCCTTAAG TCTTTATTCT GTAAGAAAGG AAGGGGAGAA TAAAATTTTG
97951 TGATTTTAAA ATATTTTCTA CCCTGTAGAG CTACCCTACA AGGCATGAAA
98001 ACCTTAAAAA AAAAGGCATC TACTTTAAAA GAATAATGTC TAAAAAATTA
98051 GAAATCCCTT CTTTTTGCCC TGACCTTTGG GAAACAGAGT GAGTGATCCT
98101 TTTGAGGTTT TTGGCACTGC CTTGCCTGTG ATCATATCCT GAACCCTAGG
98151 TCCATAATCA TGCAGTTACC TCAGATGTCC CTTTCCCTCT AGCCACAGGT
98201 AACACGCTCT CCAGGCACTG GGAAAGTGGG TAATTAGGAA AGCAGAGGAG
98251 TACCCATGGG CTGTGATGCC CAGTTATAAA CCCAGACATT TCAGAATTAA
98301 CAGAATGAGC ATCAAGTCCT CAAATGGGTC TACATCCATA AACATGTCCA
98351 GCAGTCAGCT TTTTACTGTC AGTAGAGACA AAATGTTCCCT ACACTTTCCC
98401 TAGGGGAAGC CACATCCTCA GTAGGTTATC TCTGATGAGT CCAGCTAGTC
98451 ACAGGTATGT AGAAGCTGCA TGCAGCAGAG GGCTCAAAGG AGGGTCCAGA
98501 ATAGATACCA AAGCAAAAGG GGAGTCTGTG CACGTTCTCA CACGCACCCC
98551 GAAACACTCT TTTTGTTTAC AAAATAGATG GTGTAGGTA GTTCCAAGAG
98601 ATCATTTAGC TCAGGTTCCCT GCCTCCATAA AATAAATAAG CCTTCCATAT
98651 TAGTTGTCTG TTGCTGTGTA GCAAATTGTC AGAAACGTAG AGGCTTAAAG
98701 CAATACCCAT TTATTATCTC GCAAGTTCTG TATCTCAGAA GTCCAGGCAG
98751 GCTTGACTGG GTTCTCTGTC CAAGTTCTCG TGAGACTGAA ATCAAGGTGT
98801 TGCCAGGCT GGGATCTTAT CTGGAGGCTC TGAGGACATA TACGCTTCCA
98851 ACCTTATTCAG GGCCATCAGC AGAATCCCGT CTCTTGTGGC TTGAGGTTGG
98901 AGGTCCCGCT TTCCTTGCTG GCTGTCATCC AGGGACCACT CTTTGCACCT
98951 ACAGGCTGCC TTTATTCCTA TTCACAAGAC ACCGTTTCAT TTCAAACCAA
99001 AGCAGCATGT AGAATCTTTC TTGTGGCTCG TATCTTTCTG GCTTTCCCTT
99051 CTTCTTTAGC CAGAGAAAGT TCTTTGCTTT TAAGCGTTCA TGCGATTCAA
99101 TCAGGCCCACT CTGGATAATG TCCCTATTTT AAAGGTAAC GTGATACCGT
99151 ATAACATTTC AGGAGTGATA ACAGCACATT TACAGGTTCC AAGGATTGGG
99201 GCAGAACATC TTTGGGGGAA CATTTTAGAA ACTCTGCCTC CCCACTCACC
99251 CATAATCCTT TTAATAACCA AATCTTGAAG CTTTTTTTTC CCAAAGGCCT
99301 TTTTGAATAA GCACATTTAT ACCTAACTTC ATCAGACACC CACTTTGAGC
99351 AAACACTAGC ATGTGGCAAA ATAGGCTGTA AATCAATCAG AACTATCTTT

FIGURE 3, page 28 of 61

99401 TCCCACCACA ATCTTTCTCA AACACATTGG GAGAATCTGA CACTGTCAGT
99451 GGTATACCAG AGCAGACTCC TACCATCTCA CAAGAGCTGA CTGTTAAATG
99501 TTTAGTAATT GTGGACATTG GTTGTTAAAC TATTAGTAGC CTGAAATTGA
99551 CTATAGTGAG AGTATTTTCA CCATGGAAAG CAACCGTTCC AAATCAGGGT
99601 TTCTCTTTAT TCCTGGGAAG CTGGTTTATT AGCTCACCAC TGGCTGTAGT
99651 CCTTTAGGGG TCATTACTTG ACCTCCTGTA GCATGCAGGA ATCCTCTCCA
99701 TGGCCTTTTT TATGCATGGA CATCATCCTA TTTTAAATA CCAGGAATGG
99751 GGTATCACT CTCTTATAAG CTAGTTCATC TCCCTGATGG AATGGTATGT
99801 GGTAGAGTTG AAACCCACCT CCCTGGAAC TCCCACCAAC TTCCTTTGGA
99851 AGCAGCACTT GTGACAGCCC CAGAACCATT TGGAGTAAGT AGCATTTCCCT
99901 CCAGGAGACA TCTCTCCTCT GGATCCACAA ATCAATAGTT AGATGCAAAA
99951 TCTTTAGAGC CACACTGTTT GAATTCAATT CCCAGCTCTG CCACTTATTT
100001 AGTTATAACC TTAGGCAAGT CTCTTAACCT TTCTGGTCTC CTGGTTCTTC
100051 ATGTGTGGGA ATGGGGATAA AAATAGCACC TACCTCATAG GTTATTATGA
100101 ATATTAATAG AGATAATGTG TGCAGAGAAA ATAGCACCTG GTCTGGCCTC
100151 TACCTATCTA ACAGGTTAGT TGTGAGGATT AAATTACTTA ATATAAGCAA
100201 AATGCTTAGA GCTCTGCCTA GCACAAAATA AGCACTATGT AACTATTGGT
100251 AAGTTAATTT GAAATGTGGT TTCTAGATCT CTCATCATCC TAGTCACCCCT
100301 ACTCTGGATG TACTCCAAAG TCCCTCTCAA GATATAGTGT CAGAATTGAC
100351 CTAATTAGTC CAGCATTTGA CTGAAACGCT AGACTTTGAC TCCAGCCCCC
100401 CATCCTTGAC TGGCACTAGC ATTCAAGCCG CTTCTCCTCT TTCCCTGGGT
100451 CTTTAATAGA GTCAGAGCGA CTTCTCCAGG GGATCTTTTG GCCATGGACC
100501 AGTAGCATCC ACACACGCTG GGGCCTTGT TAAAAAGGCAG GCTCTCAGGC
100551 CCCACCCAG ATCTACTGAA TCAGAATCCA CACATTAACA AGATGCTTGG
100601 GTGATTCATG TGCACATTAA AGTTTGAGAA GCACCGCTTT CAGGGACGAG
100651 ATGACACACT TATTTTAAAG AGAACGCCAA TTAGAGACCC TAAGCCTTCT
100701 CATGGAACAG GGGCCTTCCC CTCAGACCTT GGGAGAGGGG TCAGGGAAT
100751 ATCAGTGTG GGTGTGTTGGT GACAGGTGGC GGTGGGGGGT TCAGTCCACG
100801 TTCAAGAGC CAGAAACCTG GCAGGGGAAG AGATGGGGCA GTGACACCCA
100851 ACCGGAAAAA TAAAGGAAAC TACAAGAAGA ACCCAGCTAA GAGATGTGAG
100901 GCTTCTGAAA GCTCCCATGG AAAGGTTCGC AGCTCCTCCA CCTGCTCGGT
100951 CCAGCTGCCC CAGGTCAAGG AAGCTCTGTG AGTGTAGCT GACCCGGAGC
101001 AGCAAGGATA CATTCAGAAG TGATGAAAGG GAACGCTTCT TGACAGGGTA
101051 AAGAGTCATT CAGTAGGAAT GAGACAGGAA GAGGTCACAG AGTCAGAAGC
101101 CCAGCTGTGA CTCAGAGATT ATTCTGGCCA TGGGAGGGCC GAAGGGTTAG
101151 GAGGCCACCT ACTCACAATA CAATACAGAG GCAGATCCAC TTATTACCTG
101201 CCTGTGCTGC TGGGATTTCA GTGTGGAAT TCTGTGCCCT CCACTGTGG
101251 CTGCAGCTTG GGAATGACAT CCAGAGCTTA CCCACCTGCA TAAGAAATAA
101301 GCTATAGGTG TAATAGGGGG ACATAGGCTA AAATCCTAGC TCAGCTGCTT
101351 AATAGCTGTG CGACTGAGCA AGTTACTTAA CCTCTTTGAG CATCTGTTTT
101401 CTCATCTTTA AAATGGAAAG AATCATAATT GACCAAGCCC AGTGGCTCAC
101451 ACCTATAATC CCAGCACCTT GGAAGGCCGA GGCCAGTGA TTGCTTGAGC
101501 CCAAGAGTTT GAGACCAAGC TGGTGACACC TCGTCTTAG AAAAAATACA
101551 AAAATTAGCC AGGCATGGTG GCAGGTGCCT GTAGTCTTAG CTACTCGGTA
101601 GGCTGAGGTG GGAAGATTAT ATGAGCCCGG GAGGTTGAGG CTGTGGTGAG
101651 CCAGATTGTG CCACTGCAAT CTAGCCTGGA GACAGAGTGA GACTGTGTCT
101701 CAAAAATAAA TAATAAAAAA AATAATATCT ATGTTAATAA AGCAGAAATA
101751 AGAATGAAAT AAGAGGCCTG ACATGGTGAC TTATGCCTGT AATCCCAGCA
101801 CTTTGGGAGG TCAAGGTGAG AGGATCACTT GAGCCCAGGA GTTCAAGATC
101851 AGCCTGGGCA ACTTAGTGAG GTCCCATCTC TACCAATAAT AATTTTTTAA
101901 AAATTAGCTG GCAATGGTGG CATGCACCCG TGGCCCCAGC TACTCAAGAG
101951 GCTGAGGCAG GAGGACGGCC TGAGCACAGG AGTTGAGGCT GCAGTGAGTC
102001 ATGATCACAC CACTGCATC CGGCCTGGGT GACAGAGTGA GACCTGTCT
102051 CAATAAATAA ATAAGAAGAA TGAACAAGA AAGTTCTTCT TATGGTCTC
102101 ATGGTGGTGA GCACAATGTA AGCATATATA TTATCTTAGA ATTCTTCTT
102151 CCTGTATAAA GAAGGCCTCC TCCAATGTAT TAATCATCTG TTCAACTAAT
102201 AAATGCTGCT TACTCCACT TTCACTCTAA AGGAACTCAA TGGCTAAAGA
102251 GAACCCCTCC CCTTTGCAGC ACCCTGAGGA TCAGAGGCCT GATTTGAATG
102301 TCCTCGATGC AAAGGACTAT TTCAAAAGGC CAGCCAGGCA GCCCAGACAT
102351 GTATTTCTTA ATCGTCTCCA GGTGTGTTGA TAGAAGATCT CCTGGGAGCA
102401 GGTTTCCGCA GCAGCTCAGC CAGGTCTGTT CTGGGAACGC TGTGTGCATT
102451 GGCACCTCCC TTGGCAGAAA GCTTGGAGGA AAGGCAGGTG CAGGTCCCTGG
102501 AGCCTCTGAC AGCATTACTG GCTCTAGGAG TAGCTGCTCA GGATAATCTG
102551 TCCCCATGAC CATTAAAGTA CTGCCACTGT GCGGGAAGAA GAACTGGAAA
102601 TGGGGGGCCC AAAAAATCT GAAAACCTC ACTTGAACCA GTAAGTTATA
102651 CCCTGGGTTG CTGTTGGAGA GAGCTTCTTT GGAGTAGACA AATGTGGTAT
102701 GTTAAGTAAA CTGGGGATCT AGGTTTGATG ATACTGGGTC TGCAGCTTCT
102751 TTGTCCCACT GAAAATCCTC GGGCATTCCA TGAAAGTAGC CTTCAAATAA
102801 TTTTGTCTC TAATGACATA TTTTGCTGCA AAAAAGATGA GTGGATTCT
102851 TTTACGAAGT CTCAAGTGTG TTAGAAATTC ACCATGAGTC ACTCAGCAAG
102901 TTATGTTTGA GGGCGTCTG TATGCCAGGC ACTGTGCTGG GCACTGGGAC

FIGURE 3, page 29 of 61

102951 TACTGTAGCA AGTCACATAG ACAAGAACTT GCTTGATCTT GGAAGTAAGC
103001 AGGGTGGGGT CTGGTTAGTC CTTGAATTGG AGACTGCCTG GAGATACTGG
103051 ATGCTGCAAG CTTTTGAAAA AAGACAAGTT CTCTGTACTT GCAGAGCTTA
103101 CATCCAGTAA CTAACTAAC AACTTCAGGC TGTGTTGAGT GACTGAAAGT
103151 GGTGGAGCCA GGAGTCCTCT AGATAAGGTA GCCATGGAAG GCCTCTCCGA
103201 AGAGGTGATA AGTTTACTCA GAGACGCAAA CGATCAGGAT AAGCACAGAC
103251 CCCGGTGAAG AGCGTCCCAG GCAGAGGGGA TAGCAAGGGG ATTGCCCTTA
103301 GGTGGGAAAG GGCTTGATTT GAGGACTGGG AAGACCAAGT TGTCTAGGAC
103351 ACATAAGCAA GGGGAGGACG TTATGAACGA GGTCTGAGGG GTCAGCAGCG
103401 ACTGGATCAT GCAAGCTCCC ATAGGCCATG GTAAGGGCTC TGTGTGTACT
103451 ACAATTACAG GATGCATGAT AGGACCTGGG CTGCATTTTT AATAGTTAAC
103501 CCTGGCTATA ATGTGGGGAA GGGATTGAAG AAAGAGGGCA AAGGCAGGAA
103551 CAGGAAAATC TCTTAGGAGG CTACTGCAAA GCCCAAGGGA GAGGTGATGG
103601 TGTGTTGTTG TTGTTGTTGT TTGTTTGTGTT TGTCTTGTAG AAGGAGTCTC
103651 ACTCTGTCGC CCAGGCTGGA GTGCAATGGC ACAATCTCGG CTCACTGCAA
103701 CCTCCGCCTC TTGGGTTCAA GCAATTCTCC TGCCTCAGTC TCCCAAGTAG
103751 CTGGGATTAC AGGCATGCAC CACCATGGCT GGCTAATTTT TGTATTTTTA
103801 GTAGAGACAG AGTTTCCCCA TGTGGTCAG GCTGGTCTTG AGCTCCTGAC
103851 CTCAGCGCAT CCACCCGCCT CGGCCTTCCA AAGCACTGGG ATTACAGGTG
103901 TGAGGCACCG CGCTGGCCAA ATGATGGTGT TTTGATCTGG GTCTTAAAGG
103951 CAGAAGGAAG GGGGGTAGTA AATTAACTGT GCTGGGGGAG AGAGGGAGGC
104001 CTGAGAGTGA GGAAAGAATG AGGGGTGATT CCAGGTTTAG GAAAAGTGGG
104051 CAATTTGTGA GATGATGGTG CCATTGACAG AAATGGGAAA GAACAAGTTT
104101 GGAAAGAAAA CTCAGATCT GGCTGGTGAC TTGTATTAAA CTAAAGCCTT
104151 CATTTGTGAC TTGAGCAGAA GTAAGGACTT TCTCCAGTGT TCAAGAGCTG
104201 GAAGGGATTT TTCTAGCCTC CAGGCAAGGT AATACCATAA GTCCCAACAG
104251 TGATGCCCTC CCTGGGAATG ATCTCAATGG GAGAATCCTA TACCTGCCT
104301 CCTCCATTCA TTCTTGCTC TGATGGTGGT TCTGGCTGGC TAACCTAAGT
104351 TACTCTTGCC ACTAGTTAAC GCCTGTCTT ATTTCTCTTG TCCCCACCTA
104401 AGATGTCAAT CAAAACAGCA CGAGCCATGC TATGTCACAT GACATGTTGT
104451 CTGTCCAGCC CAGAGCTTGT TGCTGATGGG GGCACAGACT AGATTTTGAG
104501 AGAAATCTCT CTGTTACCAC CCTTAACATT CCAACCCCTT CTAATAGCCC
104551 ATTTAGGATT TATCATACTG TTTTCATCAA ACCTTTCATG ACCTGATTTT
104601 TATTTCCAGC TTCAACCACC CCTTGGGTCA CCACCTGTAC TTATTGAGTT
104651 TCCTTAGATT TCTGAATTAA TGACTGAAGA TGATAAGCTT CCCTTACATA
104701 TGACTCTCAA ACCACCAAAC TGGGATTGTT GTTACTCTTA GTGATAATGG
104751 TTGCTATTTA TGAAACTTTT AATAGGGAAC ACAAAACCTG CCCAGAAATT
104801 CATATAAATT ATTTCAATTA AGAACATCAC AAAGTAGGTG CTATTATTTG
104851 ACCTTAGACG TGAGACTTGA AGAACTTTAG AGCATTGCCC AAGGTACCCC
104901 AGCTAGTGAG GGGTGGAGGC GGGATTTGAA TCCAGCTCAT CTGTCTCCAT
104951 TACCTGGAAG AAGGAAGGCC AGAGCATCAT GGCCTTTCAC AAGTTGAAGA
105001 GCCACGGGCT TTCTACGGTA GCCAGCCACG CTTTTCCATG ACTGGGGTGG
105051 GTGTGGCAAG TGATGAGGGT TTGGAGTTCA TGTGGTGGGG TGGCAGGGAC
105101 CAGGTGTCTT GGTAAGTCT GTTGCAATTA CTTCAGGAGC AAAGGACCAG
105151 ATCTGATTCT GCAGGATCAA CAATATGGAC ACTGCAGGCT CTGTAGACAT
105201 CCAAAGCTCT AATGGTGACT TGGGGAAGCT CAGGAGGGCA GGGAGGTTGT
105251 ACCCATTTAG AATGTAAAGA TTCTATTTT ATAAAAAAGA AAAAAAGGAG
105301 ACTGAAGGCC TCAGTCTCCT CCAACAAAGC CAGGCTGTGG GGTAGCAGAG
105351 TCTCAAAGGG TGCAAGGCCA TGGCCACTGC CCAGGGCTCC TGCTCAGGCC
105401 TCCTCACTCC CACAACAGG GGGAGACCCA GTTCCACACC CACCCACCTA
105451 GCAGTGTCTC ACACCCACCG GGAGAGGTCT AAACATCTTC CCTGGGAAT
105501 GGTCCCAAAA TGTCCTGCA GTAAGCAACC ATCTGGAGAG GCCCAGGTCT
105551 ACATCTGTTT TTAAAGCTCC AATAAATAAA TAAATGAAGG AAGAAAAAAA
105601 GAAGAAGAAA TGCAGAACAG GGTGACTAAA ATTGGCATGT ATTTTAAAT
105651 GTTTATATTA ACAAACCTAAC ACCTTTTAAC ATGAAAAGCA ATATAATTGT
105701 GCTAGCCACA AAATCATCGT AGGACTGAGA AAGGAATCGT GATTCTGAGA
105751 GCCCTAGAGT TAATGTGATC CAGCTGGCTC ATCCCTGTGA CTGCAGAAGC
105801 CTGTTTGGAG ATAGTGTGAG TAGCTTTTCA GGCCCTCTGT GAATTGCCAG
105851 AATGTGTGAC ATGAGCCAAA TTTCCCCCA GCATCCCCGC CGCCGCCACC
105901 ACCACCCCG ACCCAACCT CCCGCCGCT CCCATAGAAT AGTCACTGCC
105951 ATACAGAAAA AGAGAAGTTC TACTATTCTT GGGCAAGATT TCCACAAACC
106001 AGTTTGTCCC TTTCTGCTTT CATGAAATAA ACCATTGGA TCAACGTCAG
106051 CTGATTGCAA AATTTTCCC TTGCTCATAA AGCAAGACTG ATAAGGAAGC
106101 AAACATGGGA GGACCTTAGT GGCCGAGCCT TTATGTGTAT GTTATTTTCA
106151 TGCTCTCATA ACTGCCCTGG GATGCTGTAA GCATGATTCA TCCTGTTTGT
106201 TTATCAGTTA AATTATGTAT CCAAGATTAC ACAGCCTATC CAGGATTAGA
106251 CTGAGAGGCC CTCGGCTGTG AAGCTTGAGC TCTTTCTTTT CAGTCTTCAA
106301 ATATGATCAT GCCATGAAGC AGCACAAAGC CCAGGAGGAG CCCAGTGAGG
106351 CTGGAGGGGT CCACTGGCAG CCACTCTCCT CCGTGCCCTT GTGGTGTGG
106401 GGCAAACTTG GATCTTTCTG AATCTTTTAA CTGTTTCCTT CTCTTCCCGT
106451 TTTTGTCTGC TGCTGACTT GTCCTACACT CTACTCCTT CTTATGATAC

FIGURE 3, page 30 of 61

```

106501 TTATTTTTC ATCCACAGCA AAACAATTCA CATCAAGGTA ATTGATGATG
106551 AGGCATATGA GAAAAACAAG AATTACTTCA TTGAGATGAT GGGCCCCCGC
106601 ATGGTGGATA TGAGTTTTC GAAAGGTGTA GTACCTGTCT CTCACACTA
106651 AACTAACAT TCTTCTCTCC TCTTCTGTTT CTTCCTCTCC AACCCATTTG
106701 TCTCCTCCTC CTCTTGCTCT CCACCTCTCT GGTTCCTTT CCCTTGCTCT
106751 CTCTCTTGCT CTTCTCTCTG CTCTCTTTTC ACTCCTCCT CTCCTCTGTC
106801 CTCTCTCTGC CCCAGCTCT GTCCTAACAC CTGCCAGCCT GACACATGGC
106851 ATCCATACGA GGGATGCTCA AGACCGATGG TAATTTGTTCT GGGATAAGGA
106901 AATGAGTATG GGGAAAGAAA GAGCCAAAAT GCTGGAGTAT CATGTGCGGC
106951 TCTTGGCTTC TCCAGAAATGG CTGGGCATAA AGGGGGGAAA AGGGACCACA
107001 TAGCCCAGCA CCAGACAGAA GAGCAGCACT GAGAAACAGG CTTTCAGCAC
107051 AAATTTCCAT GGGGCAGTTA TTCTCAGGGC TAAACTTAGA GTCCCAGGAA
107101 GTTGAGAAATC AATGTATTTG GATTACAGTT CATTCCCCTC CCAAAAGCAG
107151 GCTTTAGGAG CCACCTTATC TGCCATGTTG CTACTATCAA GACTTGTTTC
107201 TCCTCCTGAC CTTGAGGAAG CTGAAAGTAC AGGTTTGAGT TCCAGATCTA
107251 GGTCAAATAT CCATTTGTCT TCCTATGTTT TTCTATTAA GAACACCAG
107301 GTGTGGAGGC AGAGAGTTAG AATAGTGGTG GAGATCATCC TGACCCAAAT
107351 GGAAGCTTCC CCAAGAGGTC CATGGGGCTT CTCAGAGTGG ATGGAATCTT
107401 TGCCTTCAAC TTCAATGACC CCATACATCC CATGGCCTCC AATAGACAAG
107451 TCAAGAAGTC CTTTCTGAA TAGATCATAC TGTGGAGCAG GGAGCTGCCA
107501 GTACTGAGGG CAATGTTTCT TCCCCTTCCA AGCTGTCCCT CATGCCCTCC
107551 AGTACATGCC TGTGTGACA GAGCACCCCA ATCCCATCCC ACAGCAGAGT
107601 TCCTGCAGCA GAGAAACAGG CTCACACCTT GTAGACAGCC CTGGGGTCCC
107651 ATATCTAGGG CCAACAGAAA TATTTCCAAA AAAATGCCTC TTGACAATCA
107701 ATGAGCTTTC TCTTTTGTC GCTGAGCAAG GTATAAAAG ATGTCAAAAG
107751 AAGTACCAA AAAGGTAATA AAAATGTACA GTCGTGCATC ACTTAGCAAT
107801 AAGGATACAT TCTGAGGAAG GTGTCTTAA GCAATTTTGT CATCGTGGGA
107851 AAATTATAGA GTGTACTTTC ACAACCTAG ATGGTGTAGC CTACAACACA
107901 CCTGGACTAT GTGGGCTAT TGCTCCTAGG CTACAAACCT GTACAGCATG
107951 TGCTTGTACT GAATATTGCA GGCAACTGTA GCACAATGGT ATTTGTGTAT
108001 CTAACACAT CTAGACATAG AAAAGGCACA GTAAAAATAT CGTAGTATAT
108051 AGCCTTATGG GACCACTATT GTAGATGTGG TCTGTCATTG AGCAAAACGT
108101 TTTTATGTAG CATGTGACTG TACTTGTAAG GTACACACAC CACAAATGCA
108151 CAGCAAGTCC TGTGCCCTAC AAGCCCCTTT GGGTCAGTCT ACTACATTAT
108201 AAATGGCAAA GCCGAGCACG CCCACAGAAG GTAGCAGGAA CATCAGAGGA
108251 TCTGAAGAGA CATTTAGGTA AATGCTCTTT ACCCTTTAGA GCATTTAGTT
108301 CTTAGGCCCTC CCTCCCCCA ATCTCCCCC CGCCCCCGC CAAAAAGAAA
108351 AAGAAAAAGA AAGCAGAAAA TTACAATTCT GGCTCACTAG TAGGACCTGC
108401 TAGCCACCAT TGTGATTCCA TGAAGGACCA GAAGAAACCA TATAGGAAGA
108451 ATCAGGCCCA CACGGCAACC TCTCCACATG ACAAGAGGCC AGTCTTTGGA
108501 GGGCAGTGAA TTTCAAGGAA AGTTTCTTTC CCTGGGTGAC TTGTTTTTAA
108551 AAGATGTTAT GTTTTGTGTA GATACCCAGA GATGAACAGA AACTTCCATC
108601 ACCTTGTGCC CAGACCCAT GATAATTAC ATTGAGGAAA CCAGTTTGG
108651 AACACATCAC CCCTAAGTGA TAGAAGCCCA AAGGTGATTT AGAATTTGAT
108701 GATTTACATC ATTTTCTTCA CATTTTCCCA GAAATGCATC AGCTGTAAT
108751 AGTAAAGGAT TCCTATGTAA TATTGTGGTT AATACATATT TATTTTAGTT
108801 CCCACCCTG AGGCCCTATG AGATAAAGAA TGAGAAAGAT CACACAATTC
108851 TACCTCCCTT TCTCTCTCT CTCTCTCTCT TTCTCTTTCT CTCTCACTCT
108901 CTCTCTCTCT CTCTCTCTC TTCCTCTGTC TGGTTTTCTT TCCTCATAAA
108951 TACTTTTCTT TTAATTTTCT CTTTCTGAAA CTCACAATGG AAGTGAGTAT
109001 AGACATAAAG AAGGGACACA AGCCCTGGGT TCTGTTGACA TATTCCTGT
109051 TGTGGGAAGA CCCTGGGTTA TTCCAGTGG GTTAGTAGTT TACCTGTTGC
109101 CCAGAGAAAT GCCACTGTTA TCATGTGACA CCCAGTGGAA TGTGCTGCCT
109151 GACTCACTTC CTACTAACTG TTGGCAAGGT CTAAATGAC TCCTCCTCAC
109201 CATTACCCTG CTTCTGCCTT CTCCTCCCCT TCTGTCCTTC TGGCTCCCTT
109251 CCTTTGCCCA CCTTCTCTTG CCTCTGGCT CCCTGCCCC TCACCCGTAA
109301 GAACAACAT GACCAAGAAG ACAAGAAAA CTAAGACCAT TTATTACCTG
109351 AGAACAACAC AATCCACCAT GGTCTGTTG AAAGCCACCA TGGTGGGACT
109401 GGAATGCAATG TGCCAGGAAT GACGGGGAAT GATTTTAAAG GCTGTGCTCC
109451 AGGTGACCAA CCAATCTACC GACCCAGTCG ACACACTCTC TCTCTTGTG
109501 TCCCTACAGG AAAACCATAA GGGTTAAAT AGTAGATGAG GAGGAATACG
109551 AAAGGCAAGA GAATTTCTTC ATTGCCCTTG GTGAACCGAA ATGGATGGAA
109601 CGTGGAAAT CAGGTGTGAG ATTCTTTAAA AACAAAAACA CAAAAAAGAA
109651 GAAAGAAAAA TTAACAAAA CTGAAAAACA ACAACAAAA AGAAAAAGCA
109701 GCTATATTTT TGCTCTCCCT CTTTTCTTCC CTCTCTCTCC TTCTCTTTT
109751 TGACCAATGG ATTTTTTAT TCTTTTCCCT CCTGTATTCT CGCTCTCACC
109801 CTGTTTCGGT ATCATCTCTG CTTCTTAGC CTTAGCTTAT TCCAAATTC
109851 TCCTTTACCG CCTTCTGGGC AGCACTGCAG CCTCAACTCC TCATTACCCT
109901 AATGAGTTAT TTCCTGTTT TGCTACAATT TTCAATTAT CAATTGCCAT
109951 GGGCCCCTGC ACTCTCCCC ACCCCACCCC TACACTGTAA CCTGTAATG
110001 TGAAAAATTC TTGTTGGGTG GGGAGGAGAA GAAAAAAG GAATGTGATG

```

FIGURE 3, page 31 of 61

110051 CGATGCATGC CTGTGCCCCCT TCCTGCCTTC CTCCCCCTGCC ACCCCTCACT
110101 CTTTAGCCTG GATTGAATGT GGGGGGGTCT GGGATGGGGG TTGGGGCCTG
110151 GGTTGCAATG ATGCTTTGAC AGTTTTCTGC TGCATTCCCC AACTTCCTTT
110201 GAACGCTTGG CAGGTATTTC ACTTGTGGAG TGGCCCATAG GCCCCTCTGC
110251 CCTTCGAGGA GGTAAGTGTA TTTTCTGGCT GTTTCACAGT TGGGCAGACC
110301 GTGGCATGGG AAAGTGTAAC AATTGTGAGA AGCCACGGCT TCTGAGAGCT
110351 CTGAGAGAGA GAGTTGACTT CTGGGGTAAT CATGCAATCT GGAATTCTGA
110401 GCTATTCTTC CTCCTCTGGG CATCCACCCC CATGCCATTC TATGTTCCCTA
110451 GCCCCAAGTT GGGTGCCTCA TTCAGGCTAC TTTGGGACAA TGCAACCTCT
110501 AAAGCAGAAA ATTGAGAGTT CCTGAAGGGA AGGAAATAGT TCCAGGTATG
110551 AAAATTCCCG TAGCCAGGGG CCCCAGAAAA GGACTGACAT TGGGCAGGCC
110601 TGGAGTGTTG ACTTGTGGAT TTTCCAACAG AAGAGACTCT AAATGATGCA
110651 GTTGGTGCTG ATCCCTGACA GACAGGTGTT GGAAAGGTCA CAGATGTCTG
110701 CTTTGTCTTG GCATCTGCAA GAGAAAGTAC CGCCAGATC CCAAGATAGC
110751 CCTCATCCCA CACTAGAGAA GTGCCTCAT CTCCTGCTTT CCTCAGGACC
110801 TGCATCTGAG AATACCTGCC AGGGGCTCAT CCTAAAGGA CTGATTATGT
110851 TGCAACCAGG GTAGAAGTAA GGAAGGATTT CTTCCTTGA AGAAAAATGAT
110901 TGGAAGCCAC TACTTTGAAT GGCTTCCAAT CATTTGGAGG CATAGATGTG
110951 GGAATGGGTT AGGGTGTCTC TGGGAAATAA CAAGAGGACG TTCACACTCC
111001 CATTCAAGAG AGATATGCTG CTGGGAGCCT CTTAGCAAAT GAAGCAGTGA
111051 AATCCACCTG TTTGTCAAAA AGGGGTGATC ATACTGCAAT TAGTTCATAT
111101 TCATGTGACA AAGAGCAGCA TAAACTTTC CACACGAGGA CAGAGCTAAG
111151 AGATTCAAGCA ACAACATTCC CAAAGGATTC TCTACAGGCC TTCTCAGTGT
111201 GATTGGTCAT TTCTCATTGT CTGCTGGGGA CTCTCCTGCA GAGCTGACCA
111251 CTTCTGTGCC TGCCTGGGTT TGGACACACC TGATGCTCTA GGGGCAGAAC
111301 TCCTCTCTCT CTTCAGTCTT GGTCTCTTTC GTCACCACTC AATAAAACGT
111351 TGCCCTCAGC CTGACTGCCA AAAAGTGCTG GAAGAAAGAA ATTATCTCTG
111401 GTTCTATTGT TTCCACATT GTATTCTTGC CCAACTTCCA GTTCTTGCCA
111451 CCAACAATAT TCTCAGAGGT TGCCTCAGCA CCTGCCCTAC CTCATTCCCA
111501 CCTCCCTTGA GCATTTATTTC CATGTATTCA TAATTGGTTG GAAGCAGCAG
111551 ATACCCCAAG CCAATTGTAA GTCACCTTCA TCAGTTTCCA CAGTCCAAGC
111601 TACTTAGATG CAAACGAAAG CAGCACATGT ACAGCGTACA GGAAGGAAGG
111651 CAGTGGTTCC AGACAGAGAG AAGAGATTGG AAGTCCATAC ATGCCCTTAT
111701 TCCACCAGTA AAAAGGCTCT TCTCTTATGC CTCCCTTAAA ACCTCTACCA
111751 ACAGCAGGAG AGAGAGTGAC CCAAGATAAG TCTTCAAGAG ACCTAACCAG
111801 ATGCAAATGT CTTTGGCTAA TCCCCATTTA AGGACATCTT CCTGTTTTGC
111851 ACAGATTCTT TGCCCAAGGA AATGTCAGCA ATGCCCTCGT GGAGGGAGTA
111901 GGTGAGAAGA CAAGGATTTT AGCAAGCTAT CTGTGTGGTG TGCCCCCAGA
111951 TCTCCCTCAGT CCAAGAGATG CCAAGATGAA GAGTGCCAAG AAGAAATTGG
112001 TCAATTTTCC AGCTGCCTAT TTTATTGTCT ATGTTTTCTA GCGGGTTAAT
112051 TTCCAGTTTC TTCAGTACTT CCCGTATTTT GACATTAGAC CATAAGGTGA
112101 AAGGTCATAA AACCTGATTG TCTAGACTCA GAAGCAAATG GAAACCCATC
112151 CAAATTTCCA GAATTCCTTG CTGTTCTCAG AGTGAGAAAC AGAACAGTGG
112201 AAATTGCTTT TCATTATCAC TACTGCATGG GAGAGTCTGA AACATTGAGA
112251 ATGGCATAGT CTTTGCATGG TCAAAATGAC AATTGCATTA AAAAAATGAG
112301 AGACTGGATT TGAATAGGA GACTCTATTT TTGGCAAACA AAACAGACTT
112351 CAGAGTTTGG ATTAAGCT CTGGATGAGC TGGGGGATGG AAAAAAGGGA
112401 AGGAAAAAAG GGAGACTGAA TAGGAAACAC AGTTGCTCTG GAGTCTAGAA
112451 GTGGACTTCC GAGAGCAACA CTGAGCAACA TAATCAAGAC TGTGCGCCT
112501 GGGCCTGGAC ATTGGAAGCC TTCGGATAGA AAGGAAAGCT CTCTGTCTCT
112551 TCTCTCTCT TCTGAAGAAT GGGCCTGTTT GGTCTCTCTT TTTGACAAAC
112601 CGTGGGCTCA TCTTGACAAG CTGCCCAGAT GCTTCTAAT TACTCACAGT
112651 CCTATGCTCT TTCCAGCTTG TCCCTGGGGT GTCTGAGCAG GAATAAATGA
112701 CTCTCACCTG ACCCAGGGGA TCAATACAGG GGAAAGTTCA GCTCCAGCTT
112751 CTCTCATGAG CAGCAGCAGG AAAAACACCC TCGAGGTATT GTGTCAGTCA
112801 AAGCTGGCCT ACCCAGGTCT TGCTGACCCA TCTATAACTG CTGAGCAGAA
112851 AGTCTTGGAT TCAATGAGAC AATGACCAGA GAATGATGGA ATTCAGCCA
112901 ACTGCAGGCC TTCTCACTAC TCTAGGGATG GGCCAGATGT TCGGTGGCAT
112951 GTATGAGTGA AAACAGGGC ATCAGGGACC TTTCTGGAAG AGCTGCCTTT
113001 GTCTGACCCA CCTGTGTTCA TTTATGTGCT GGGATCTCTG ATCTCCCTTG
113051 GAACTTGGGG GAAGCTCTTC CACGCAAACT CCCGGAAGGA GCAGATAAAA
113101 CAAGCTCTTG CCTATCTATC TATCTATCTA TCTATCTATC TATCTATCTA
113151 TCTATCTACC TCTATGCCTA TCTATATCTA TCTATCTCAA TGTAAGTGGG
113201 AAAGCCATTG ATCCATTAAC CTTTGAATTT CTACATGGGA GATACCTAAA
113251 AAAGTGAAGT GCCTTGTTTA TGTATCATGC AGACTCTGGA TCCACATATA
113301 TCTCAGTGGC TGTGAATATA GGATGATTGA TCACAGGCTT GAGTTGCATT
113351 CCTACAGATT CTTAGGAAAA AAATTGATTG ACAGACATGT CCCCCTGGT
113401 TCCCCACAAA CACACACTCC TTCTCAGCA ATCTCTATCA GTCACCAACT
113451 ACAGGTTGAA TATGTGGCAA GCTCTTCCCA GACCTTTATC TGAGAGCCAA
113501 GGAGTGAGGG GCTGTACTAA GATATCATAG AAATGAAAAA GTGGTGTGTC
113551 ACAAGTTTCC TTAATTCTTA GATCTTAAAC TCTAAGAGGG TTCAGCATAA

FIGURE 3, page 32 of 61

113601 GTACAAATTC AAGGGCTAGA GACAACCTGT ATTGGGTGTG TCTTTAACTC
113651 AGTTTCCCAA TCCACATAGG GACCTTG CAT TTGTCATCTC TCATCTATGT
113701 ATAGCTGTTG GTATGACAGT TTCTCTGTTC CAGAATACCT GAACTCTGAC
113751 TTAGCCTGTG CTTTCTGAAA CAGAAAAATC ACCCAACCAG AGATCTATGA
113801 GATCTATGGA AAAGACAGTT GCCAAAATAG ACAGCAAACA GCCAAACTTA
113851 ATTGAACACT ACCACATGCA GGGACTTTGC TAAGCAGAGG TGATACAAAA
113901 TGGGAGGAGC CCATAGCCCT AACTTCCAGG ATATATCTAC GGTAAGACA
113951 AACCATTCAA GGAAACATT CTGCAGGACT TACCTTTTGT CTAAGTCATT
114001 CTTTTAGGGG AAATCAAAGT TCTAGTCAAC GTGGCAGCTA GGAAGGCATT
114051 TGTGGTGATG GAAACCTTAT GAGCACTGAG AAGCTGAGCA TGAGTTCAGC
114101 TAAAGTCGTTA GGGATGGAAG ACATAGACCT GGGCACTGTT CCACTCTTGC
114151 ACAATGCTAC CCATTTCCTT GAGCTCCCAT TCAAGCCCCA TGGTCATTTT
114201 TGCCACTCAT AAGTTAGCTA CTCTGGCAGG GTTGCAACTT ACACAGTTTT
114251 CATGATAACT GGATTCTCAC TCCTTTTTTT ACAGAATGGA TGTGATAACC
114301 TGGTATCCTA CACAGTCATG AGTGACCAAC CTACCCATTT GGTTPCCCAT
114351 CCTCATTCCT CCATTCTTAG CCCTAGGGTA GCCGGGAAAG CATAGGAGCA
114401 AATGCCCTTA CCAGGGCCCT GGTGCTCAGC AGCCTCTCCG GCTGCTCACA
114451 CCTCTTGCTG CTGCTCTGTG CATGCTCCAA AGGCTGCTTT TTGCGTATGG
114501 CTGCTGAGCT CTCACCTACT AAGCTCTCTG CTTTCCTTAT GCTGCCAGCA
114551 ACCACAAAAC CTGGTGATAC TTTCAAGATG GGACATTAAT GCTCTTTCCT
114601 TTTCTTCTCT CCATTTTCTT GGTATCCATT TGCAACAGC GCTCCTGTTA
114651 TCTCCAGGTA AGAGGTGTCT TGTCCCCCTC TTTTCTTTCC ACTTCTTGCC
114701 AGTGCCATTA TTTGGTTTAA GACCAATGTC CTTTGATTTA TTGAATAAGA
114751 ACTGCAGGCT CAAGTTAACC TGACAATTTT TCCCAAGGAC TGGGAGATTT
114801 ATTTTCCCAAC ATGAAGCAAT TATGAGAAAG CAATTGTGAG GAAGGCAATT
114851 CCTTGAGCAT CACTTCTGTC TGGGGACGTG GGTAAAGGCA TAGCTGATCC
114901 TCTCTGGGAC CAGGAAGAGA AATTAAGCTT AACCAAGGAGA TGGTGGGTCA
114951 TAGACTTCTC CTGAGTCTTA ATTCATCTGC CATCTCATGT TGTGGGGGAA
115001 GAGACAGTGA GATTGAGAGC TGGAAATCTCC TAATATAATT GTGACAGGAT
115051 TTGAAAAAAA AATACTTTAA TCCCAAGGGA TCCAGGAAAT AACCAAACTT
115101 GTTGTGAGAA TAGGAAATGC AATTTTAAA GAATCTGGAA TTTTACCAGT
115151 CCTGGAGATC TTCCATCTCA TCACAGCTGA GACTTAAATT GCTAGAATTT
115201 TGGTTCAATT GTCAATGACC CTTAAAGTCC TATGTGCCGT GAACAAGATG
115251 AATTAGGATG GGGGATTGGG GCAGTGTCTT GGCTGGAAT ATAAATTTTA
115301 GAGAATTATC TTTGAAGAGA TTCTCATGCA GAATCTAGGT GCTATAGAGG
115351 ACGTACACCT ACTTTGAGAG TATGCTTGCA TGAGTGGAAA CCAATCATAA
115401 ACAACATTCA ACTTCATGAG CAGATATGAA AGCATTTTCA GCATATCTAG
115451 CAATACTATA ACTCTTTGTG CAAGCAGAGT GGCCTACACA AGACAGTTTC
115501 AATATATTTT TAGAAGAACGT CTTACATTTC ATCAGTCTTT TGAACACAGA
115551 AAAAAATGTT AAGGCCACTT AAGAGGCAAA ACATCTTACA GAGTTCATTG
115601 ATATTCAAAG TCACCTACAG GCTACATCTT GGGTTCAGGA AGGGGCGGTG
115651 TACATAGTAA GGACATACGC CTTCTGGGAG CCTTAAACAA ACAAAAAAAA
115701 TGTAGGTAAC TCCTACATTT TTCTTTTGTG GAAAAAACAC AGTTACTCCA
115751 GCTTCCTTGG CTTTTTGCTT CTTTTTTATA CCAACAAAAT AAGGGCTATC
115801 CTAACCCCTC TGTTCCTCAT TCTTCTCCCA GGGTATTGAT TTCATAACAT
115851 TGGGTTTTTC TTCTCTACTT CACTCATCCT CTGCGCTGTG AAGGTATGTA
115901 AGGCTTCTTT TTCCCAACTC TTTCTCCAC CCGCCCCCCC TCACATAAAT
115951 GCATAACAAA GATTGTGATT TAATTTAAGT TTCTTTCTAC TTTTAACATA
116001 TTGCAAAACA TCAATAGAAG CTAAATGGG AAAAAGGAAA TGTTTCTTTT
116051 CCTAGCTCTT TCAATCTGTA AGCCTTTAAT TTAGGAGCGC TGATTAGCCT
116101 TTCAATTCGT TGGAAATCTC AAATACTGGT TTTAATTTTC CTAGGTGGAC
116151 AGAGACAGAG GGAATATGTT CATCTGAGC TAACCACCCC CCCACCCCCA
116201 AGCTCAGGCG CCTTGACAGGA AGAGCACTAG CTACATCACT CTGCAGAGTG
116251 TTCACAACAT CCTATTCTTG TCTGGCCTGG CAAGCTCTTT GTCCTTCCAA
116301 TATTTGTTCA ATCTTCCATC CTATTCATAT TCTATCTTTC TCTCCCCTCC
116351 CAGCCTCTCT TCCTGTTTCT AGAACTGAGA GTTTATTTAG TCAGTCTGAA
116401 TATCTAGATC ACCTGCCATT TATTCTCTTT ACTTGAAATT CTGAGGAGTC
116451 ACATAAACAA GATATCAGAA TCACTATGGT CCTCTAAATT GAAGACTTAT
116501 AATTCTCTCA AGAAATTAAC AACATTGAA TTTAAAGGAA AGATCATGAC
116551 AAAAATAGAA AAAGGCAGGA ATTATTGCCA AACCGAGAAA CTAGAACTA
116601 GAATTAACCT AAAGGCATGT GACTCAATCA ATTAACAAAT ATATACAGAG
116651 AGCCTCTGTG GGACTGTGGG AGATCCAAAG ATAGAGGATT GGTATTTTGT
116701 CAAAGGGATT TTGACAGAAA GCTAGATGGA AAAACTGACT GTCACCACAG
116751 AGGTGGACAG GTCAGTAAGT AGATCAATAT CCTGCCAGAT GGATATAGTG
116801 CTAGATTGAT AGGTAGACAA GGGGTAGAC AGGTACATTT ATATGTCACT
116851 GGAGAGCTCA TTATATTGGT ATAAAGTTAT TGTGTACAT GTAAAGTATG
116901 ACATGGGGGA ATTGGGGAGG AAGGAGTGGG ATAATACTGT CGCTGCTAAG
116951 ATAGGCATTG TGATATGGTG CTTAAACCTG CAAGTAAAGG AAAAGAGTAT
117001 GGAATCTGTG TGTCTTTTTC TAAGGGCTTT TTCCAGAGT AGCTTGCAGT
117051 CTGGCTTCTA GGGTTGCTGG CCTATAGCCA GAACCCTAGA TTCACCCAGA
117101 TTTACCTTCA GAATTAACATA ATCAGAGACT CAAATTCAT AGACTAAATG

FIGURE 3, page 33 of 61

117151 AAGTCAGGCT GCTAGAGGAT GTCTGCTGAC TTGGACATAT GCAGAAAGAC
117201 ATGGATCCTT GAGAAAACAT TGTTCCTAAA AGTGGCCACC AGCACTAGAG
117251 GAAGGACAGC ACCACGGACA GCTCCCAGAC ATTTTAGGAT TGCCTTCTGT
117301 GTTTGGTGCC CGAACACTGA GCAAAACAGC GAACTCAGGA AGTCTCCACA
117351 CACTCTCATA CCATCTTCAT GCAGTCCAAC TAAGAAAATT CTTACATAAA
117401 ATATAAGGCT GTCTGCTTGG TAATTTAAAC CCTTGGCTTA TAGTCTTTTC
117451 AGTGAATTC TTTCTTGCA AACTCGAGAG TTGGAGTCTC ACGACTGCCC
117501 TTGCTTCACC AATTCCCCAG CTAGAGACAA AAGACCTTCT TGGCCTCTGA
117551 CCCATTTTGT CCTTGAGATT ATCCAAGGAC TACAGGATTCC CCTTAGGAGG
117601 TTTACTGTGT GGAATGAAAG CAATTAAGGA GCTGAATAAA AGAAATAATT
117651 GCATGTGAGA ATGTGGACTT GGATGGGAAG ATGTTTAAAT GAGCTCTGAA
117701 AGAAACAAGC TGCCAAGAGC AATTTTCTAA TTAAAGGGGA ATAAAAAGAT
117751 TCAATCTCTA TTTCACCTCTA ATCCAGAAAA CATGCTTCA TGGAGAAGTG
117801 CTCTTAAAT GGAATCATCA GCCAAAGTGG AAAAAACAAA AACAAAAAAA
117851 CTGTTCAACA TGAGAAGGGA CCATTGGTAA ATGAGTCAAG ATGCTGTGAA
117901 ACCAGTAGAC ATTTCCCTTG AATAAATGTA CTCTGCACC TTCAAGAACT
117951 CTTACAGGAA GTGGTTGAAC AAACAGGCC AAAAGTTCAA AATAGTTCAA
118001 GGTCAAAACA CTTGCCCTTT CTTCACGTT CCCCACATC TCACTGAGTG
118051 TCTTGAGAAC TTCACCTGAT GCTATTTCTC AGGAGATGTT TAGGTCAGGT
118101 TGTCACCCA GGTATAAAAG AGAAAGAGGA ACGCTTATCC CAGTCTGCAA
118151 GGCACATCT CATGGTCTGG TTATAAAGTG TTAGTACTT CATAAAAAAG
118201 GCACTAAAA TATATATAAA CTCCCATTC CCAAGAGTTA TTTGCTTTGT
118251 ACCCACTGCC CATGCCATA ACTCTGAGCT GTATCCTTCC AGGGAATGGA
118301 AAAGGTGTTA AAGCGAGTCT GATTTTGTTC TGTGTCAGAT GTGACAGACA
118351 GGAAGCTGAC TATGGAAGAA GAGGAGGCCA AGAGGATAGC AGAGATGGGA
118401 AAGCCAGTAT TGGGTGAACA CCCCAACTA GAAGTCATCA TTGAAGAGTC
118451 CTATGAGTTC AAGGTCAGGC AAACAGTGAG GTCTAATGTA ATAATAAATA
118501 AATTAAAGTG GGAGGCAGAA GACCTGGGT GTTTTTTCC ACTTTCACTA
118551 GTGAATATGT GAAGTTGAAA CTGAACAAAT CACTTACCCA CCCAGGTCT
118601 CAGTTTCCCC ATTTGTAACA TGAACAAAT AGTGCTGACC ATTTGTATGC
118651 TAGGAATATT GTTAGGAAAC ATAATATAGA ATGTGAAATA AGTGGACTAG
118701 AAAGTCCTGA GATGTATTAT CATTATTGTT TAACTGTGTT TTTAAAGCAA
118751 AAATATTAAA ACTCACTACT ACAGGGCAAG ATATATTAAAC ATCATTATTA
118801 TTATTCATTA TTGTATTATT CTAATAGCC AATTTCAAAA GTCACAACCA
118851 GGCAGGCGC TGAGGGACTC ACGCCTGTAA TCTCAGCACT TTGAGAGGCC
118901 GAGATGGAAG GGTCACTTAT ACCTAGGAAT TTGAGACCAG CCTGGGCAAC
118951 ATAGGGAGAC TCCATCTCTA TAAAAAATAA AACAAAATAA AAATCAGCTC
119001 AGTGTGGTTG TACATGCCTG TGGTCCCAGC TACTCAGGAG GCTGAGGTGG
119051 GAGGATGGCT TGAGCCAGG AGGTTGAGGT TGCAATGAGC CATGATTGCA
119101 CCACTGCACT CCAGCCTGGG TGACAAAGTG AGACCTGTC TCAAACAAAA
119151 CAAAACAAA AGATTACAAC CAAAACAAA GGGAAATAGA AGGATTGCCT
119201 CAAAAGAGAT CGCCCAAGGC CATTCCATGC GTAAGTCA GAACACCTTG
119251 GAGACAGGCG ATCTTTTCACT CTTTGAAGA ACCAGACTCC TCATTGGTTC
119301 TGAGCATTCT AACCTCATGG TTCCAAGTTT TTCTCTTCTT AACAGACTAC
119351 GGTGGACAAA CTGATCAAGA AGACAAACCT GGCCTTGGTT GTGGGGACCC
119401 ATTCCTGGAG GGACCACTT ATGGAGGCCA TCACCGTCAG TGCAGGTGAG
119451 AAGTGTCTCA GGCTGGCCTT GCTGGGAGAA GCAGGCAACC TCTGAGAAGG
119501 AAGCGTAAAG CCACGTAAAC AGCCTGCCAG TCCCTAGGAA GGCTTGTGTG
119551 TTCAGTCTTC CCAGCTCTGG TCCTAGGTGC CTGCTTGGA AAGAATCATG
119601 CGGTATCTGA AAAACATGGT TATCTCTGGT TTCAAATCGT TGTCTGCTG
119651 TGTGAAGTGC AACAAATGTAC CCTCTCTGAC CTCAATGTCC TCTTTCCAAA
119701 GGGGAACATAT TGCTACCTTT CTCAGAAAAG TAGAAAGGTA CAGAGCTCTG
119751 TATAAAATCC AAACCTCAATA AATCTCTGATT TCTGTCAATC TTTCTTTTCA
119801 TGGGTTTGGT CCCGCTCTTC TGTAATATGT GGGACAATTC TGATTTAGAG
119851 ATGTGGGAGT TAGGAGTTTA TAAAATGTGT TGCATTGACT TCCCAACAAA
119901 ACACCTCTGA TGATTCCATA CCCCTCCCTC GGCATTTACT GACAGGCTCC
119951 CTCAGTAGTG ACCCAGGACA CAGCCGGGAG TCCTAGCAGC CTGAGGGGAC
120001 TGCTGGTTGG AACAGGGAGC GAAAAGGTCT CCCAACACC ATCACTATCA
120051 CCTCTCAGCA CCACTGAGGC CTCCTGGCCT TGTCTTTTAT TGAGAGACTT
120101 TGTGTCATA GCAACCCACA GGTCATATC CCAAGGCC CAGAGCCAGA
120151 GCAAAAAGAC AGCCAGGAAG AGAGGTTTGC TGCTGCTGCT GCTGCTGCTA
120201 CCCCACCTTT CTCATCACCT GCTTTAGATC TTTCTAGCTC CCCCTCTGAT
120251 GACCTGACTG TCCCTCTCAA GACAATAAAC GGAATGTAGG CCACATCATC
120301 TACCTGCTC CTTTTACAAA GGAGGGGACT GAGGTTGAGA AATAAGAGAT
120351 GATTTACCCC AGCTTACAGA TTTCTTCAT GGCAAGCTG GAATGAGAAC
120401 CCAAGTGTTC TGACTCCTGT TCTTTCAAAA CCCAGCTTCT ACCGGTTATG
120451 CCAAAACATG ACAGAAGTTG CCGTTGGCAA GGCACAGGCA GGCCTCAGCA
120501 TACCTTCCCC TCCAGGGCTG CTGAGTGGGC AACTCTGCCC ACATTTCTCTG
120551 GCAAGGACAA TCAAGGCCCA TCCTGCTTTT TCCCATGAGA TGTTTGGAGG
120601 AGGGCACTGG CTCTGCAGTA TATTCTCGTG ATCTGGAATG ACAGCCATCC
120651 CTCAGGGGAG AGATAATGAC CAGAACCACA ATGGTTATTG CAGCAGTCAG

FIGURE 3, page 34 of 61

120701 GTCAGAAAAA TTGAGAGGAG CCCTGCTGGC ATCCAGTGAA GAGTGGCCAC
120751 ACCGAACTGA TTTCACTTCT CTCCTTAGAC AACAAAAATGC AGCCTGTGCA
120801 TTCTCCTTTT TTTTTTTTTT TAATTATACT TTAAGTTCTG GGGTACATGT
120851 GCAGAACATA GAGTTTTGTT ACATAGGTAT ACACGTGCCA TGGCGGTTTG
120901 CTGCACCCAT CAACCCGTC TCTACATTAG GTATTTCTCC TAATGCTATC
120951 CCTCCCCTAT CCTCACCCC TGACAGGCTC CAGTGTGTGA TGTTCCTCTC
121001 CCTGTGTCCA TGTGTTCTCA TTGTTCAACT CCCACTTATG AGTGAGAACA
121051 TGCAGTGTGT GGTGTTCTGT TCTGTGTGTA GTTGCTGTAG AATGATGGTT
121101 TGCATCCTCC TTTCTTTCTG CTCCACTGTC TTGTCCCTCT TAATCTCCTT
121151 CTTTCTTCTC TTCCTTATTC CCTGGCCCTC TCTCTCCAC TCTACCTTGG
121201 TGGCCTGCAT TCAAATTGAC CTATGAGGCA GCCCAAATTG TTTCCCCACT
121251 ATTTTCTGGC ACGCTGGCCC TGGCCCCCAC CAGCTGCCCA GAAGACAGCT
121301 GGAGTCCCTT TCTAGCGGAT GATGCCTGTG GTGCGGGTTG GGCTTGACTT
121351 TCTCATGAAT GATTATCTGA CTTCTTACCC GTTCTCTTGC CTGTTTATCT
121401 TGCCTTCAGC AGGGGATGAG GATGAGGATG AATCCGGGGA GGAGAGGCTG
121451 CCCTCCTGCT TTGACTACGT CATGCACTTC CTGACTGTCT TCTGGAAGGT
121501 GGTGTTTGCC TGTGTGCCCC CCACAGAGTA CTGCCACGGC TGGGCTGTCT
121551 TCGCCGTCTC CATCTCATC ATTGGCATGC TCACCGCCAT CATTGGGGAC
121601 CTGGCCTCGC ACTTCGGCTG CACCATTGGT CTCAAAGATT CAGTCACAGC
121651 TGTGTTTTTC GTGGCATTG GCACCTCTGT CCCAGGTGAG AGTGAGAGGT
121701 GCTTGAATTT GCAAAGAGGA TTTTACCTGG TTCAAATGAC CCCTGGACTC
121751 CATCTCATT TCTTCCACAC CATCTCAGAT CTGAACCTAA CAGAGCCTCT
121801 GCCCTTAAAG TGCACAAAAG TCAATCAAAG AGATGAATAA TGACATTAGT
121851 AATGACAGCT AATATTTCTT GAGCACTTTC AATGTGACAG ACACCATGTG
121901 TGTTCAGCAA TTTACACATT TACATTTTCC CCCTGTAATG TTTCCCAAAG
121951 CCCTATTAAA TAGGGTAAGT TATTATCCCC ACTTCACAGA CAAAGAAACT
122001 GAGGCCACCA GAGGTTAAGC TACATGCCCA AGTAAGTGGT CCAATTTCTT
122051 AACCTCCACA TTATGTGAGT AGACCACAAA CAGTGAAATT AAAAGAAATG
122101 AGATATTGTT CTCCTTCTAT TTACCTCTGG CGATCTCTGA GAGGTTAAAG
122151 ATTAGCCAGC TCAAAGATAT CAAAGGAGAA ATGCCACAT ACATTCTTGG
122201 CCTCCTCTGC TTGGAAGGAC ACTGTGAGTA CAAAGTATCT CCTAGCAGGA
122251 CAGCCAAAGG AAGTTCACCA GCTTTTATCT TTTTATAGGA TGAATTACAT
122301 ACTCTTTCTT TTTCTTAGGA ACACCTCAGAG ACAACACAGAA AGGAGCGGAC
122351 ATTCTTTTAC TCATTGAACA AATATTTACT GAGCACCTAT TATGCCTGTT
122401 ACAGTATTGT GCTAGTTTTT GGGACTATAG TGAAGGCAA GATACACATG
122451 CTTCTTCTC CACGTGGAGT TTATAATCTA CTGAAGGAGG CAACTCTCAA
122501 CTACTGTAAT TAAAGTTATC TTGTTAAATC CTAGGAAGAA AAAAGAAAAG
122551 TACTGCATAC GGAAGGAAGT TGGGCTGAA TGTAGGAGTT AGCAGGTAGA
122601 CAGGGGCTGC ACTAGCCAG GTTCTTACT TAATTCAGTT AGGGGCTTGG
122651 GGGCCTCTGA ACTCTGAAC TCTGCCAGGG AGCTGGCATC CCAGTTGCCC
122701 CAGAAAGAAA CAGAGCACAT CCTCCTGCAG GGAAGTTAGG CTGAATCTCA
122751 TCAGACAGGA CTTTCTGGC TGGGCCAAGG GAAATCTTTC CTGTACCAAG
122801 CAAACATAAT CTCAAGAGA GTAGCTGAAT TCACATCAAA TTTAGGAAA
122851 ACCTCTTTCC AAAACCCAG CGCAGGCCAG CGGTATTATT TGTCCATTAG
122901 TGATGCAAGA GATTTAGCTA TCGTGAAAT GCATCAGAAG GTTGGAATT
122951 AGATGGATGA TCCCAGGAAG GCCTGTGGAT GAGATGCCCC GTGATCTCTG
123001 TTCTCCAAGC CTTGGGGGAC CTGAACATATC AGAGGGGAGG GAGGAAATAT
123051 GGGGAAAGC ATAGAGGTGG GAAGAAATAT CAGAGGATCA GAAGCAAAA
123101 ACAACAATAA CAACAGAAAC AAAAAACAAAC AAACAAACAA AAAAAACAGG
123151 CCATAGGCAA GAAAGGGTAA GAGGTTTTCT CTGGGAGATC TAAAAAAAT
123201 GGCAATAAGT AGGTAAGCCA GGCAGATACC TTTGGGCATC TCCAAGTCTC
123251 TGCAATTGGC CAAGACAACA GCTAACAACA TTTGAGGCTT TAAGAAGGTT
123301 ACCCTGTGAT CCACCTCATCT GATTTAGTGG CTTTGGCTGA AGCTCTTTGG
123351 ATATAGTTGA AGGTACGGAA AGGTCCTTA CATGAGGACT TTAGGGTCAA
123401 GTCTCTTGCT AACATCCTAT GTGACCTTGG GTAAATTCTT TGACCCCTAT
123451 TTTTCTTACC TGTAAAATAA AAGAATTGGG CTAGATGTCT CTGACAGTCC
123501 TCCCTGTATC TACAATCTGT GCCAAGATCT AAAGTCAAAC ACCCTGCAAG
123551 GCCCTGTGAT ACATATATAA ACCACAAAGA CAGAGCCCCG TCTTCCTTGA
123601 GTCCACAGTT CACCCTGCAT GTCCCCATCA TGGTTCCCCA ACATGTCTCT
123651 TGTCCCCAAA ATCCAGCACC TCACCCAGTG CTCAATCAGT AGGCATTGCT
123701 CAATAACTGT TGGTGGTTCG TGAATAAATG CCCCATATGA CAGTTAAAT
123751 CAGGCATCTA CTCCAAGCAG CTTCCCAGGG TGTCAGGTT CCCTGGGGAG
123801 ATATTTAGGG ATGGCAAACT TCCCTTACTG AAAAAAGTAG CAAAGGAGAA
123851 CAATAAGCCC ACTCAGTAAA TATCAGAACT GGAAAGCCCT TCAGAATCTT
123901 TCAGATCACT GCAGATGAGG AATGGGAAGC CCAGACTAGG GATGTGACCT
123951 ACCCAGGGCT ACACGGCTTG CTTGCGGCAG AACTAGGAGT TAGGAGTGGC
124001 CCCCTAGCCC TTGTCTCTCA TTTCTGGGTT CAGCCACCA GCTCAAGCTG
124051 CTTTTTGGGC ATACTGGAAG ACAAGCCCTG CACACCTTAG CCTCTACCA
124101 GTTCCCATGT GTCTTTGTCC TTTTCCAGAT ACGTTTGCCA GCAAAGCTGC
124151 TGGCCTCCAG GATGTATATG CAGACGCCCTC CATTGGCAAC GTGACGGGCA
124201 GCAACGCCGT CAATGTCTTC CTGGGCATCG GCCTGGCCTG GTCCGTGGCC

FIGURE 3, page 35 of 61

124251 GCCATCTACT GGGCTCTGCA GGGACAGGAG TTCCACGTGT CGGCCGGCAC
124301 ACTGGCCTTC TCCGTCACCC TCTTCACCAT CTTTGCATTT GTCTGCATCA
124351 GCGTGCTCTT GTACCGAAGG CGGCCGCACC TGGGAGGGGA GCTTGGTGGC
124401 CCCCGTGGCT GCAAGCTCGC CACAACATGG CTCTTTGTGA GCCTGTGGCT
124451 CCTCTACATA CTCTTTGCCA CACTAGAGGC CTATTGCTAC ATCAAGGGGT
124501 TCTAAGCCAC ACAACAGAGC CTCCAGCAGG GCAGGCCTAG GACTTCTCCT
124551 AAGAGAAGGG CACTTCCCCA CCAGTGATCT CTCCCGACTG CACTGCCCTG
124601 GAGAGGCAGC ATCAGGACCT AAGCCCCAGG AACTTCACCC AACTTAGGCC
124651 CTGGCAATTA ACTGAAAGGG CAAAGTCTTA ATCAATCAAA CAATGGAGGA
124701 ATCACCAGCT TTACACAGTA TTTAATTGAA TACAAACAAG CAACAGCAAC
124751 AAATCCACCT CCACCCCATC TCCCCCTCAT ATCCCTGACC CAAAGCAAAG
124801 GTCAGAGCCT TTCGCTCCT TCTATTCCAT CTTTGTATTA TTCCTTTGCG
124851 TCTCATTTCT TTGGAAGCAG GGTTCCTCCT CTCTGCCCAA TTCCATATGT
124901 CCCTATTATC TCACTCAGCT GACAAGACGT GAAAATGAGT CACATTTCATG
124951 TGGCTGGGGT GGGGTCTCTT TTTTCATTGTA ATCATTATTG TGGTTGCTTT
125001 CGTTTTGCCG TTAGGTTTTG CTTATTATTT TGTTTTGTCT TTTTTTCTG
125051 AAGTGAGTGA AAAAGGTGCC ACAAGGAAT TCCAGGTCCG AGCCAACAGA
125101 GAGAAACACT AATTTTGA CACATGCTCT CTGCCACCT CTTGGCTCCA
125151 TCAAGATCCA GTTCCCCATC TCACTGTTTT CTCTGAGTTC TTGGGAGGAG
125201 TGATGGTGTT GGGGTAGAAA TAAGTCACT CACCCACGCA GGGTACTAAA
125251 GATCTTACAG GAGCTTCAAC TGGAGCAGGA GGAGCTTTTT ATGCTTATGT
125301 TGAATCAAGT CAGATACAAA AAGCAATTGT CCTCTTTGC CCAAGCCTT
125351 CCAATTCTGT GTGTCTTGT GTGTCAGTGT CCACTTGTGT ATCCTTCTGC
125401 AGGAAGACCC GCCAAATAGA AGAGATGGGA CAAAATAGG AATGGTGTGT
125451 GACGACAAAG GGCTACTGGA AGAACAAAAG GGATACAGGC CTTCTTGATT
125501 ATCTTTGGCT TTGTACCTGA GGCAGGAGAG AAGAGATGTC CAACCAAGTGA
125551 GATCTTTAAG AGAAAAGTTT GTATTTTAAA TGTCAATGTG CCTGAGAAAT
125601 GTCAGCTTCA CCACGCTCTT GCTTCCTAAT GCTCTATACA AAGAGGGCTG
125651 ACTATATTTT TTGAAGTGGT GTAAAAACTT AGAGATTTTA TAAGAGAACC
125701 AGGGGCTCCC TTCACCTCTC CTGGTCCCCTC AGGTCACATA TGAAAGCATT
125751 TTTACAAAGT AGGAACTGGA ATTCTCAT TCTCCCATGT TCCTGCTTGT
125801 TCTTAACTT CATGAAGCTA TTTTCCAGC CTATGGGGTA GTTCTTGCTC
125851 CAGTAAGAGG AATCTTAGTT GTCATAATCC CTTGGAGCCT GGGTTTTTGG
125901 AGAAAGAGAT CTCCGTGCCC TACAGACCTT TTCTCAACGA ATGTGGGAAG
125951 GACCTGGCTT TAAAACACGC ACACAAACAC ACAATAAAC AGACATAAGA
126001 TGTCATCACG AAAGTCCCCA CGGATCTTTA GGCTTTCTGC ATTGACATAA
126051 ATACATTTTC TAAGGGGGGG GGGGAAGAAA TTAATAAAC CCTGTTAATT
126101 TTAACACAT TTTTAAAGAA AAAATAAAT AAAAAAGAAA CAGTGCTCAT
126151 TGCATAAGCT ATGTTGACAG TTGCCAGTGG AAATGTTGGG TTGGTTCAAA
126201 AAAAAATAA AAGCTATACT ATATCTCTCT ACATACAGCT TGCTTCTACC
126251 TGTGTTTCTT CAGTGAAAGG TCCAGGGGGC CACTGTGGGC TTCTTGTGAG
126301 GAGACGTGAC TCAGGTGAAG GTGTCACCTC CTCTCACACT CAGGTGCCAA
126351 TGTGTCAGAC CCAGTATATT CTAAGCAAAA ATACTTCAGG AAAATGCCAC
126401 TTGTCAAAAC CTGGACTTTG CGAAGTTGGA AGATGTAAGT AGTAGTAAA
126451 GCTGTGGTAA TTAGGAGGA AGGAGGTTTC TGTATCAGAA AGGCATTGGC
126501 CGTGACAGAC TC
(SEQ ID NO:3)

FEATURES:

Start: 2010
Exon: 2010-3793
Intron: 3794-109509
Exon: 109510-109613
Intron: 109614-118338
Exon: 118339-118463
Intron: 118464-119345
Exon: 119346-119445
Intron: 119446-121409
Exon: 121410-121685
Intron: 121686-124128
Exon: 124129-124502
Stop: 124503

SNPs:

DNA Position	Major	Minor	Domain	Protein Position	Major	Minor
378	C	T	Beyond ORF(5')			
742	T	-	Beyond ORF(5')			

88238	A	C	Intron
89219	A	G	Intron
89331	T	C	Intron
90794	A	G	Intron
92404	C	T	Intron
92672	A	C	Intron
92684	A	G	Intron
93132	G	C	Intron
93537	A	T	Intron
93557	T	C	Intron
95067	C	T	Intron
96000	T	C	Intron
96877	G	T	Intron
97271	A	C	Intron
97470	G	T	Intron
97518	G	A	Intron
98476	C	T	Intron
98779	C	T	Intron
99218	C	G	Intron
100538	C	A	Intron
101045	A	C	Intron
101232	C	G	Intron
101266	G	A	Intron
101290	A	G	Intron
101326	G	A	Intron
102342	C	A	Intron
104489	C	T	Intron
105266	A	G	Intron
105338	T	C	Intron
105570	C	A	Intron
105928	G	A	Intron
106459	G	C	Intron
107710	C	G	Intron
108062	G	A	Intron
108214	G	A	Intron
108364	C	A	Intron
108657	T	A	Intron
109746	C	T	Intron
111484	G	T	Intron
112879	A	G	Intron
113245	C	T	Intron
113265	T	C	Intron
113497	C	G	Intron
114486	G	T	Intron
114686	T	C	Intron
114817	C	A	Intron
115600	G	T	Intron
115668	A	C	Intron
115745	A	G	Intron
117230	A	C	Intron
118908	A	G	Intron
120430	C	A	Intron
120830	A	T	Intron
121926	T	C	Intron
122102	G	C	Intron
122950	T	C	Intron
123366	C	T	Intron
124947	C	T	Beyond ORF(3')
125010	A	G	Beyond ORF(3')
126043	T	C	Beyond ORF(3')
126064	-	G	Beyond ORF(3')
126283	C	G	Beyond ORF(3')

Context:

DNA
Position

378 TGGCATGTACAAAGGTCCTGGGGTGGACAGTCACTTGGTATAATCCAAGAGTGAACCTGA
AGGCTATTGTTGTTGAAATGTAATAAGGGAGAGAGTGACGGGATGAAGGGGGATGAGTGG

FIGURE 3, page 38 of 61

GAAGCAGTGAATTCCTGCAAGGCTTTGAAGGTCATGGGAAAGAAATTTGGTCTTTATATCA
AGAGCAAGAGAGACTACTAAAGGGCTTCAAACAGGGGAGCGATATGCTTAAGTCTGTTT
GTTTGTGTTTTTAAAAAAGATTACGGTGGCTATATGAGGAAAGTGAATTGAGAACTAG
[C, T]
GAGAGTTGGAGTGGTGGCTCCATTAGGAGGCTACTGAAGTAGATTTCATGAGGTAAGGAG
TGATGGTGGCTGGCTGGGATGATGGTGGTAGAAATGGAGAAAGAGTTGATAGGATTTA
GTGATTGGATAAGGGACAGAGAGAGATGAAGGCTTTGAGCTAACATCTGCTTTCTAAC
ATGAGTAACTGGGTGGCTGAAGATGCTATTTCTGAGCTGGGAAACAGGAGAAAAAGGAG
CAAATATGGGGATGAAGACTTTGAGTCTTTAAGGTGCTGTACAAACACAAATCAGCATT

742 TGGTGGCTGGGCTGGGATGATGGTGGTAGAAATGGAGAAAGAGTTGATAGGATTTAGTG
ATTGGATAAGGGACAGAGAGAGATGAAGGCTTTCAGACTAACATCTGCTTTCTAACATG
AGTAACTGGGTGGCTGAAGATGCTATTTCTGAGCTGGGAAACAGGAGAAAAAGGAGCAA
ATATGGGGATGAAGACTTTGAGTCTTTAAGGTGCTGTACAAACACAAATCAGCATTCCT
TTATTACTAAGGGTATCCACACAGTTGTAGCAGAGGGAGAAAGATCGCCCCCCCCAC
[T, -]
TTTTTTTTTTTTTAGCTATTTCCATGGTATTTTCATTCTCATCCACCCAAATGAGGCAG
TGAGTGGTAAGATGAGTATATAATAGTTTCAATTGCATTTTCATCCCATTTCTTCTGAGCTC
AAGCTCACCTTTTAGTGGTTGAGGCCAGTAGATGAAGCTGCATATCACCCCAAAATCT
TGTCTCTAGTTTAAACAAACTTATTTGAGAGACATTTGCATGTTTTATTAATATGATTT
TTACCACCTGTTCCCTTCCATGTTTGGGTTTGAATTTGAGTGGCTGGCGGATGATCATC

2005 TTTCCATCCCCAGTATTTCCAGCTATTTCAAGCCATTTTCAACGGAGTCTCCACCAGAT
GGTTTGGAGGACAGAGCAGCTATTTGTGCCTCCCATTCAGATCTATTTTCCAAGTGAGA
GACTGCCCCATATGTAGTGCAATATGTCACTGGAGGTGAAGCATCAGTTGTATTGGTGG
GAACCTGCCGTTTGTCTGCTCCCTTTTCTCATGCCCTTTCTGCTCTCTGATCTTTTC
TAGGTTCTGCGCTATCAGGAGGACAACCTGGTGTGCAATAGAAGCAGTGGCTAAGTCT
[C, T]
GTGTATGGCGTGGTTAAGGTTGCAGCCTCTCACCTCTGCCTTCTCCATTTTGGGCTGGT
TACCTTTGTGCTCTTCTGAATGGTCTTCGAGCAGAGGCTGGTGGCTCAGGGGACGTGCC
AAGCACAGGGCAGAAACAATGAGTCTGTTTCAGGGTCATCGGACTGCAAGGAGGTGTCTAT
CCTGCCAATCTGGTACCCGGAGAACCTTCCCTTGGGGACAAGATTGCCAGGGTCATTGT
CTATTTTGTGGCCCTGATATACATGTTCTTGGGGTGTCCATCATTGCTGACCGCTTCAT

2381 CCTGAATGGTCTTCGAGCAGAGGCTGGTGGCTCAGGGGACGTGCCAAGCACAGGGCAGAA
CAATGAGTCTGTTCAGGGTCATCGGACTGCAAGGAGGGTGTCTCCTGCCAATCTGGTA
CCCGGAGAACCTTCCCTTGGGGACAAGATTGCCAGGGTCATTGCTATTTTGTGGCCCT
GATATACATGTTCTTGGGGTGTCCATCATTGCTGACCGCTTCATGGCATCTATTGAAGT
CATCACCTCTCAAGAGAGGGAGGTGACAATTAAGAAACCAATGGAGAAACAGCACACAC
[A, C]
ACTATTCGGGTCTGGAATGAACTGTCTCCAACCTGACCCTTATGGCCCTGGGTTCCTCT
GCTCCTGAGATACTCCTCTCTTAAATGAGGTGTGTGGTCATGGGTTTCATTGCTGGTGAT
CTGGGACCTTCTACCATTTAGGGAGTGCAGCCTTCAACATGTTTCATCATCATTGGCATC
TGTGCTCAGTGATCCAGAGCGGAGAGACTCGCAAGATCAAGCATCTACGAGTCTTCTTC
ATCACCGCTGCTTGGAGTATCTTTGCCTACATCTGGCTCTATATGATTCTGGCAGTCTTC

5165 TTCTCTGAATGACTGAACATATCCACAAATAATAAGCGTGGCAGGAGATGGTGTGAAGA
GTAAAAGGAGCATATAGGAAGTTGTGTGTGGGGTGTCTGTTTCAAGAACCTGCTAATT
ATACCTTCAGTAAGAAATGAAGCCATACAACCTCTAGAAGAGGAGGAGGAAGGAACAT
GGAAAAGTGGGGAGCCATAGAAGCTAGGGAGAGGTGTCCTAGGAGTGCTTCTGCCAGGT
CCAGCCATGAGACAGAGCTCAAAAAGAGCTGGGCACTGCTGGTGACAGAACTGAGTGACC
[C, T]
GGGGATCCTGCATCTGTTCTTACTCAATCCCTTCTTAATAATGTGACTTGGGGCAGGTC
ATTTATTGGTTCTGGAACCTAACTTTCTGATATGCAAACTGGGAATAACAATACTTTCT
TGCCGTGGAGCAAGGTCAGTCCCTTTTGCAGTTCCTTCCAGCTCTAAGATTTCTGAACC
ATAGACATAAGCACTCAGTGTAGGTCAATTCGCACTTGCCAAAATGGATCAGGGAATA
TTGTCTCTGAAGGGAAATGGCCATTGACAAATTGATTTATTAGAGCTCTGTTTAGTCAT

5402 GGTCCAGCCATGAGACAGAGCTCAAAAAGAGCTGGGCACTGCTGGTGACAGAACTGAGTG
ACCCGGGGGATCCTGCATCTGTTCTTACTCAATCCCTTCTTAATAATGTGACTTGGGGCA
GGTCATTTATTGGTCTGGAACCTAACTTTCTGATATGCAAACTGGGAATAACAATACTT
TCCTTGCCCTGGAGGCAAGGTCAGTCCCTTTTGCAGTTCCTTCCAGCTCTAAGATTTCTG
AACCATAGACATAAGCACTCAGTGTAGGTCAATTCGCACTTGCCAAAATGGATCAGGG
[A, G]
ATATTGCTCTCCTGAAGGGAAATGGCCATTGACAAATTGATTTATTAGAGCTCTGTTTAGT
CATTTTGTGGGAAGGATAATCATTTGTTAACGTAAGTAGAAACCTGTGCCCTTCTGGAGA
ATACTATCCATTTATATGTACTCTGGGGAGAGTGTATACATACAATGAAGGACAGGG
CTTCACTGGGAAAACAACTCCATGGAATTTACATGATTATCGCGATGTCAGTGTGGAA
GAAGATATGTAAGGCATTAAATGACATTAAGACCACAAAATTTGCCATAATTTGACGGGA

6794 CTCATAAAATATTAGAGCTAGAAAGGACCTTAGAATATCTTCTGCAGTCATGGTTCTTAA

FIGURE 3, page 39 of 61

ATTTTAATGTGTTGCTCAATCATCCAGGGATCTCACTGAAGGGCAGATTAGGATCCAGGA
 GGCTAGGGGAGGATTGAGATTCCGCATTTCTAACAAGTTCTGGATGCTGCGGGCCCCA
 ACTTAGAGGTGAAAGGTTCTGAAGCTCTTGACCAAACCAGGAGACCCAGCAAAGAAGTGG
 TTTTTCAGACAACCTTGCTTAATTGAATAATGATTGTTTGCTCTTTAATTCCAACCTTCAA
 [T, C]
 GCCAATTTAGCAAGAACCAGAGGCTGTGCTAATTGCCACACCAGTCTGGAACCGGAAATG
 GATAGCTTCAGGGTACTTGGACAAAGTTGGAACATCTGCTTTCTAATCTCTCCCTCTTTG
 TATAGCTTTATTTGCCATACCAAGCCTGGTAGTATTGAAAATCTGCCCTCACTATACTCCC
 CTAATATAATCAAGTTGAGGCCAGGCCTGTGCTCTATCAATAATATAGGATCCACGAAT
 TCACATGTTTGGTTTATGCTTTACTTCTTCAAAGGTGCTTTTAGCAGCATGGAAGAATG

9883 GTCAAAGAATATGTCAAAGCATGACATATTCCAACCTCCAGGATCCATAAAACACCCCAAG
 TTCTGTGGAGACCTTATCACATCTGCAAAACCTCTCCAGGAAGTCCAGAGCCCTCCTGGTT
 AATTTGTTTTAGGACTAGGCATGCGGTATCCCTGACAACACTGGATCAGCAATTCTCC
 TACCTAAGTCAGTCCCAACCATGTGCAGCAGAGTATCCAGTGCCCTGCCCTGGTCTGC
 TCACATTGGTTTGTCTCCAGAATAATAATTCCTCAATATCCACAAGAGATTGATTCCAG
 [A, G]
 ACTACTCCGAGGATACCAAAAATCCTCAGATGCTCAAGTACCTGGTATAAAATGGCACAG
 TATTTGGCATATGACCTAGGCATATTCTCTCCATATACTTTATTTATTTATTTATTTG
 GGACAGAATCTCATTCTGTCGCCAGGCTGTCACTCGCTTATTGCAACCTCTGCCCTCCCA
 GGTTCAAGCAATTCCTGCCCTCAGCCTCCTAAGTAGCTGGGACTACAGACGCATGTCAC
 CACGCCCTGGCTACTTTTTGTATTTTAGTAGAGACAGAGTTTACCATGTTGGCCAGGCT

10210 CAGATGCTCAAGTACCTGGTATAAAATGGCACAGTATTTGGCATATGACCTAGGCATATT
 CTCTCCCATATACTTTATTTATTTATTTATTTTCGGGACAGAATCTCATTCTGTCGCCAG
 GCTGTCACTCGCTTATTGCAACCTCTGCCCTCCAGGTTCAAGCAATTCCTGCCCTCAGC
 TCCCTAAGTAGCTGGGACTACAGACGCATGTCAACACGCTGGCTACTTTTTGTATTTT
 AGTAGAGACAGAGTTTACCATGTTGGCCAGGCTGGTCTCAAACACCTGACCTCAAGTGA
 [T, C]
 CCGCCACCTTGGCCTCCCAAAAAGCTGGGATTACAGGCGTGAGCTACCACGTCCAGCCC
 CCCATATACCTTTAAATCATCTCTAGATTACTTATAATACCTAATACATGTAATGTTAT
 ATAGTTGTTTAAATGTATTGCTTTTTTTATTTGTATTGTTTTTATTGCTGTATTATCCT
 TTTTATGTTTTATTTTTTCAAATATTTTCTACCCGTGGCACCACAGTTGGTTGGTGGA
 ACCTGCGGTTGGTGAGCCCATGGATGTGAAGGCTGATAGTATGAGAAAACCTCAGAGGT

12220 ACATCCAAATAGTAACCTAATATTTCAAATATGGCTGCAAAACAAATGTGCGATTATGGA
 TGACTACTACTGCCATCTCTCCATACCAGTCCATCTTCTGCCAGGCTGTTTGGTCTTGAT
 TTGTCGACCTTTTAGGTTTCTCCCATGTATTCCACATGACCTTCACCAACCCCACTTCT
 ATCTCAAACGCTCTTTCTGAGTTGTGGGATGTCAGATGTATTCTGCCACCATCACAAGGG
 CTAACCGAGCCCTGGCTGCGGATCTTCATTGTTGTTACATTATTTCCATTCTTACACCC
 [T, G]
 ACTTCATGTTTGTACACTATTTTCTTACATTGCTGTCTCTTCTAAACATTCTTTGCTGC
 ATCCACTTTTTCTCTATTGTTGCTCTAGGTGCTGCAGAGGCTAATGCTGGGTTTCCCTTTC
 ATTCTCCTTGCACCTCAGACCTCCCTTCTCAATTCCTTTTGCCATGTCTCCACTTTAAA
 TCTTAACCTACTCCAGATAGTCTTTTCTTCCACTATTGGCATCTGTGCTTGGGTTGCT
 TTCAGTCTATTCTCTGATCTATGATTCTTTTGCATGATCAAGAAGGTGCCATGAAAGGAT

13842 TCACCTTCAAAGCCTCTTTCTGGGTTTGGATTTCAGAGCAGCCTGTGCTGTAAAGCAAG
 ACAGAAAGCTTCCCTGCCATTCATGCCTGCCAGGATAGAATGACAGTACTCCTGAGGCT
 CTCCCTCCCCACCCCTCCCTGCTGGACAGCTGATCTGCTGGACTCAGCCAGAGCCAGCA
 GGCACCCCTCTTTATCTAGGAGCTGCAAACTTGATGCCTTTCCAGGAAATCCCCAGAA
 GCTGGAGTATCCTCATCTACATGTGGCACAGTGTATGGTTGTGTCAGGTGCTCATGTCCC
 [G, A]
 TTGCATAGGACTGGGGTGGAAAATAGGGACCGTCCCTTTTGTGTCAGCTCCAGTCAATGAG
 TAGTGGCCATCCAGGGGGCCATCTTGGAAAGGACTTGTGAGGCTGTATCGCGCTCAGTT
 GTAGATGTGAGAAGAAAAGGCCAAATATCTGCCAATCCTAGTCCCTGGGATTCAAGATAGA
 AAGAAGTGCATGGAGTGAAGAACTAGGAGTCTCCATTTCACTGAGATGCATAAGAATGA
 AATTATTGTCACTATTTCTTCAATACTGGGCCAATCCTAATAAGAAAACCCCTTTTGTAGT

14200 GAGTAGTGGCCATCCAGGGGGCCATCTTGGAAAGGACTTGTGAGGCTGTATCTGCGCTCA
 GTTGTAGATGTGAGAAGAAAAGGCCAAATATCTGCCAATCCTAGTCCCTGGGATTCAAGAT
 AGAAAGAAGTGCATGGAGTGAAGAACTAGGAGTCTCCATTTCACTGAGATGCATAAGAA
 TGAATATTATGTCATATTTCTTCAATACTGGGCCAATCCTAATAAGAAAACCCCTTTTGT
 AGTCTCTCTTTTCTTTATCTACATATAACACAGAAGCTTTTTCTATTCCCTGGATGAAC
 [C, A]
 CACAGGGACAGAAATCTTGTGGACAGGTGAAGCAGATAATTTCTTTATCAGACTAGAA
 TCTTCCAGAAGCACTGCTAACCCTAGTGAGTTTGTACTCTAGACAGGTGGTTCTCAAGCC
 AGCTCCCCACCGCAGGCTTTTTTCATGGTCTGCCCCCTCCCTGTGGAACCCATGTTTTAGG
 TTATTAGCTGATAATTGGATTCTATTTTTTCTCATAAAATACAGCAAAAGATAGCTAGT
 GATATTATGATGAGTTAATGTAATTATAGCCAAAGCAGAGAGAAACAACATTTTAATTAA

FIGURE 3, page 40 of 61

25001 GGGCAGATGAGTTTATACGTTTCTTTTCATGTCCCCTTCCTCCACATAGACTTTTATTTTCC
 CCCCAGGAAAAACAGAAAAAATGATCTGTTTGACAGTGTTGCTATCATTGGGCATCAAA
 CCTATCATCTAAGGGGAATCCCCCTGTATAATCAGTCAGCCAAATGGAGCAGGACCCTGT
 GTTTTGTAGCTGATACAACAGGGCAGCATCTCTAGTGAGGGGGCCAGGGCTTCTATTTCC
 TTCATTAAAAATGAAACAGCAGACCTGATTCATATTTAGAGATTACACTTAGTTGCCA
 [C, A]
 TGTGGGTGTGCAGGCACCAACCAACCCAGTTGGCACCGTTGTCTTTTCTCTGCAATGAT
 GTATTGAATTTAATAATGGAGGTATATGAAATTCAGAGTGATTGGAAGTGAAGGTTTAGG
 GCCTTTGTGTAATAATGATATGTAAGGGATTTGGAAGTAGGTGAGGGATTCTTCCCAAT
 ACTTATTCAATTTTGGAGTCAATAACCAAGCATTACAAATAGCCAAAAAGAAATTGA
 AAGAGGGTTAATCCAATAAATTTTCATGCCTCATATGAACCACATCTTATAATAAGAAT

25141 CCCCCTGTATAATCAGTCAGCCAAATGGAGCAGGACCCTGTGTTTGTAGCTGATACAACA
 GGGCAGCATCTCTAGTGAGGGGGCCAGGGCTTCTATTTCCCTTCATTAAAAATGAAACAG
 CAGACCTGATTCCATATTTAGAGATTACACTTAGTTGCCACTGTGGGTGTGCAGGCACCA
 ACCAAACCCAGTTGGCACCGTTGTCTTTTCTCTGCAATGATGTATTGAATTTAATAATGG
 AGGTATATGAAATTCAGAGTGATTGGAAGTGAAGGTTTAGGGGCTTGTGTAAAAATTGAT
 [A, G]
 TGTAAGGGATTTGGAAGTAGGTGAGGGATTCTTCCCAATACCTTATTCAATTTTGGAGTC
 AAATAACCAAGCATTTACAAATAGCCAAAAAGAAATTGAAAGAGGGTTTAAATCCAATAA
 ATTTTCATGCCTCATATGAACCACATCTTATAATAAGAATTATGCTTTTTCATTTATAC
 TCAGTTAAACAAATATGATTGTGAGCACCTGGTAAGTTCAGGGCACTAGGCTGAAAGGGG
 TTACCAATGTCTTCATTTAACAAAGTCCAGCTGAGCTCTTACAGGTACCAGAAGTGTGC

25191 TGATACAACAGGGCAGCATCTCTAGTGAGGGGGCCAGGGCTTCTATTTCCCTTCATTAAAA
 AATGAAACAGCAGACCTGATTCCATATTTAGAGATTACACTTAGTTGCCACTGTGGGTGT
 GCAGGCACCAACCAACCCAGTTGGCACCGTTGTCTTTTCTCTGCAATGATGTATTGAAT
 TTAATAATGGAGGTATATGAAATTCAGAGTGATTGGAAGTGAAGGTTTAGGGGCTTGTGT
 TAAATTTGATATGTAAGGGATTTGGAAGTAGGTGAGGGATTCTTCCCAATACCTTATTCA
 [A, G]
 TTTTGGAGTCAAATAACCAAGCATTACAAATAGCCAAAAAGAAATTGAAAGAGGGTTT
 AATCCAATAAATTTTCATGCCTCATATGAACCACATCTTATAATAAGAATTATGCTTTTT
 CATTTTCATACTCAGTTAACAAATATGATTGTGAGCACCTGGTAAGTTCAGGGCACTAGG
 CTGAAAGGGGTTACCAAAATGTCTTCATTAAACAAAGTCCAGCTGAGCTCTTACAGGTACC
 AGAAGTGTGCCTGGGCTGTCTATGAAGATGAATGTAAGAGTGTGTGAGGCTTCAAGAG

26147 GCATGATCTCTGCTCATTGCAACCTCTGCCTCCAGGTTCAAGCGATTCTCCTGCCTCGGC
 CTCCTGAGTAGCTGGGATTACAGGCGTGTGCCACCATAACCCAGCTGATTTTTGTATTCT
 AGTAGAGATGGGGTTTTGCCCTGTGGCCAGCTGGTCTCAAACTCCTGACCTCAAGTGA
 TCTACTCGCCTTGGCCTTCCAAAGTGCTGGGATTACAGGCATGAGCACTGTGCCTGGCCT
 TTTTTTTTTTTTTTAAAAAAGGAGGTTTTCGTTAGTTTTTTT
 [-, A, G]
 TTTGTTTTACTTCCATAAAACTCTTTGTGTACATGGAGGTGAATGGAAGAGAGGCT
 GTGGCAACAGACGGGAGACTTTTCTGATATCAGAACCCAGTCCCATAGACCAGAATGTAT
 GCTTTCAATCCACGTTGTCTGGGTCCATCCTATTGAGTGCCTGCCCCACAGCGGGGTA
 TGGAGAAGAGTCTAGACACAGCCCCAGTCTCAGTAGCTCACAATCCAGTGGAGGAGACG
 GACTCAGAAACAGATAGAGATGAAGCCATGAGATCAGTACTGTCCGAGGCCATGGCCACG

27400 TAAACTTTACAAATCCTTAATTTGTAAAATGTGGGCAATGATAGTACCTCCTCACAGGAT
 TATTACGAGGTTTACACGGAATACTCTCAGCTCATAATAAGCACTTGACAGGCCTCATG
 GGCTAGGCCCTCAAACTTAACGCATCTACAGGCAACAGCCATATGAAAGGAATTTTATA
 CCACCAAGTCAAAAAATCTGTGAGCACTGCTCAGAAGCAAAAGCCTGTCTCCAACAGCGC
 TCATTTAAGGGGTGGGCGAGCTACAGAGAGAAGAATGAGCCCCACAGGGTAAGCTGGGG
 [A, G]
 AAGCTGGGGACAGAATGAGACTCAGGAAATCACTTGAATATTGATTATATTTGTGCTCAA
 TAATAAAATAACGAATGAGTACAGCCCTAGACCTAAACATTGTGGGTGAGGCAAGGCA
 ATGCGTTAATTTGCAATCCACTGAGGAAAACTCTAAACCGTGACTTCTTTTTAAGGG
 ACCAGAAGAATCTAGATTATATTTAGTCTAAGTCAATACATACGACAGAACCTTGCCCTC
 TAGACTTGATAAGAAAGAAGTAAATAAGAGAAAGAATAAAAAACCCTTCCACCAAAATA

27401 AAACCTTTACAAATCCTTAATTTGTAAAATGTGGGCAATGATAGTACCTCCTCACAGGAT
 ATTACGAGGTTTACACGGAATACTCTCAGCTCATAATAAGCACTTGACAGGCCTCATGG
 GCTAGGCCCTCAAACTTAACGCATCTACAGGCAACAGCCATATGAAAGGAATTTTATAC
 CACCAAGTCAAAAAATCTGTGAGCACTGCTCAGAAGCAAAAGCCTGTCTCCAACAGCGCT
 CATTTAAGGGGTGGGCGAGCTACAGAGAGAAGAATGAGCCCCACAGGGTAAGCTGGGGA
 [A, T]
 AGCTGGGGACAGAATGAGACTCAGGAAATCACTTGAATATTGATTATATTTGTGCTCAAT
 AATAAAATAACGAATGAGTACAGCCCTAGACCTAAACATTGTGGGTGAGGCAAGGCAA
 TGCGTTAATTTGCAATCCACTGAGGAAAACTCTAAACCGTGACTTCTTTTTAAGGGA
 CCAGAAGAATCTAGATTATATTTAGTCTAAGTCAATACATACGACAGAACCTTGCCCTCT

FIGURE 3, page 42 of 61

AGACTTGATAAGAAAGAAGTAAAATAAGAGAAAGAATAAAAAACCCCTTCCACCAAAATAC

29278 ATACACTTCAGCAAGTCACCTAACCTGCAAATTTCAAGCATGTGAATCTTGGATCTTTCA
TGTGCTAGCTGTGAGACTTTGAGAAATGATTTAATGTCTCTTGGCTTCCTTTTCTACCC
ACACAATGGGTATAATAATGTCTACCATATATCTTTGCAGCAAGGTCTAAATGGGGTGAT
ACATGCTGAATACATTTCCAACAGAGTCTGTGCAATGATAAGCTCTTTCCAATGTAGT
TAAAGCTAACCACTAACCCACCAACAAACCAACCTCTAGCCAGGACTGATGGAAGGAG
[C, T]
CTGTGAGAGAATGCATTTAAACACTTGGCACCATGCCTGACAAGTAAGTACTCGATA
AATCAGTTATTTATTATTCGCATCGGTATTATGACCATTATCCTCTCTCTATAGGCTT
CAGGTTTTCTGTCTTTTTATCACAGCAGTATCCAGCAGAAGCCTTTGATTAACTAAG
TCTCTACTGTGTGTGGCTAGATGCTATAAAGCATCCAGAGAAGTGAGAATTTGGTCCT
GCTTTTAAAGTAGCTTATAGTCTAATTAGGGGGAAGTAATCAGATAGAAAGGAACTAACA

31437 ACTTGGCTTTGCCGGGTAAGAGGGGGCACTTCTCTCCTTTCCCTCATGAAAGGAGGGAG
AGAAGCCAAAAATCTCCCTACTAGTCAACAACCTCAGGCACCCCTCCTCTCTCTCTATT
TTATAGACTGGGAAGGGAGTGATGGTTGTTGGAGGTGGCAGAGCCAGTTCAGCTGCCCTT
TGTGAAGTCTGAAGGAGGTGCTATCCTCAACTGCTGGCTTCTGTCCTTAAGCCTGGGG
AGAATTAAAGTCTCTTTGCCTCAGTTTGGCACTCCAATTGCCAACATTGGGACAGCAGGA
[A, G]
AAGTTCCATCCAACATCCCATTAAATATGTAATGTGTATTAGCACAGCGCTGGCACTGG
GCAGGTATTTCTAAGTGATAGCCAATGCGAAGCCTACTTTATTATTTCCCTCTTTGCTT
AACCTACAAGGTGCTTAAGACCATTTGTTTGTCCACACATAGTAAGATAAACAGCACTGA
GACTGTGGTCTTTCTGCCCTGTGTCCTTATCCACCTGGGAATCTGGAAGCCAAGCCT
AGACACACTCGTTCCACAAATGTTTACTGAAGCTTGTCTATTCAAAGCACTGTACAGCT

31857 TAACCTACAAGGTGTCTAAGACCATTGTTTGTCCACACATAGTAAGATAAACAGCACTG
AGACTGTGGTCTTTCTGCCCTGTGCTTATCCACCTGGGAATCTGGAAAGCCAAGCC
TAGACACACTCGTTCCACAAATGTTTACTGAAGCTTGTCTATTCAAAGCACTGTACAGC
TACAAAGACCATCTTTTCTGAACCTCAAACCAGGCCACATGGTTGGAATAACTTCAAGTA
TGGAGACCAAGAGAAAAGGTGGTTGTTGTGCAAGCTCTGAGTCCACACCTTCCAGGA
[A, G]
CTTATAGTTGATGCAATGGTGGGAGAAGTCTGAACCTGGATTCAATCTGCTTGATTCCGA
TGAATGGTGCAGTAGGCAGAGCCATGAGTTCAGAGCAGGAAGAAACCACTGGTTCAAAGA
AGCATCTGTACATCGAAGCTGCTTTATAGTCTGTTGGGAAGCATGCATAATAATTTATT
CTTTCTTTCTTTCTTTGTTGTTCAACAAAGATTTCTTGAGTCCCTACTATGTGCCAGGTACT
CTTCTAGGTACTGAAATGCAGCAGTGAACAAAGAAGATACAATCCCTGCCAGCGGAGC

33155 ACAGTGTGAATTTTCAAAATTGCGAATTAGGAAATTGTGCTCATTTTACAATTTGGT
TTCCCTCAGGATTCCTTTTAAAGTAGCCAGCTACCCAGTACTTTTGAATATGACTTGCT
TATAAAATTTGATAGCTTGGCACGGTGGCTCACACCTGTAATCCAGCACTTTGGGAG
GCCGATGTGGGTGGATCACGAGGTCAAGACCAACATGGTGAACCCCTGTCC
CTACTAAAAATACAAAACCTAGCCAGGCATGGTGGCACATGCCCTGTAATTCAGCTGCTC
[G, A]
GGAGGCCAGGCAGCTAGGCAGGAGAATCACTTGAACCCAGGAGATGGAGGTGTCAGTGAG
CCAAGATCATGCCACTGCACCTCCATCCTGGGTGACAGAGCAAGACTTCATCTCAAAAAA
AAAAAAGATATATAAACAAGTTTTTATAATATTCTCAATAGACTAGTAGAAAAAAG
CATGTGTTTTTAGGTCTTAGAGGCCCTGGTTCAGTTTATCTCTGACTCTAATGAGGTA
TAGTATTACCTACATTGATTAGCCCTTCTATACTTCATAGGAGATGCTCCAAGACTGCTA

39487 CACTTGTCTCCATCCCTTGGCCTTCTGCAGTCCAAGCTCCATTCTGAGATCATCCAAGGC
TTCTCTTCTGTGTGATCCTTGGCCTTCTTGGAGTCTCTTTCTCCCATGTTCTCCACAAC
AGAGCATTCTCCTGACTGTTTTTCACTCTGCATCTCACTCTTTCATCAGTATCTTTTCTC
TACCATGCCCCATAAATTTGGGTGCTCCTGAGGGTCTGTCCTTGTCCCTGCTTTCTTG
TTGTACAACCTCCTTGATCTACTTCACTCAAGTTTGGTCCACAATTCTATATTGT
[G, C]
AAGATTCAAATCTGCATCTCTAGCCATATATCCATTGCTGCTAGGCATTTCTACCTGA
ATATTTTATAGGCATGCCAGTGGCTCTTACTCTATGGCTCTTACTCTAAGTCTAGACTAC
AGCAGAAAGCAATGCTCTTTTTTAAAGGCATAGTGCCTCTTTCAGAATAATTTACAGCA
TACAACAGGCCCTGCTGTGCAGCATTACAATTTGTCATTAAACTCCATTCTCTTGCCA
GAGTAAATGAGCCATTTACAGCCAGGGCGCCAAGATGGACTGTTGTTATTTTTTCTGCCT

41449 TCAGATTCAGGACACCAAGTTTTCTGTGGGAGCTTCCCTAGGAATATAACTAAGGAATT
TAAATCAGGTTACAGTCTGCTGTACACTCTCTTCTCCACTCAGGCATTGGGTGTGGC
TTTTCCAAGCTTGAGAAGGGTGTGATCTGAGATGGGCTTGGGTATAGAGGGGAATTATAT
TTAGGTCTACCTGTATAGGAAAAAGTGCCTTCCCAAAGTCTCCCTGGCCTAAAGTATAA
GAGATATGTGTTGGGATTAGACCCAGAGCCCAAGCCAATAATGGGACCCCTTCTCACA
[T, C]
GTGGCTACCTCCTGCTATCACCACAACAGCTATCATACCCATAACTACAACAGAGGCCAA
TTAACGTGGTGATAATTGACAAATGTCAAGACATCTACATTGAGGCACACTGTGCGTTT
TGGCTGAGCTTTTAAATTGGTAGGGAAGGAAACTTTTATACCTACACCTATCATGGAAG

FIGURE 3, page 43 of 61

GCAGAAGGTAAGAGCTAAAATAAAGGTATGCCAAGAACAAGGCAGGAAAGAAGGGTTTT
AACAACTTGAGGCCTGATCCATTGATTAGTGAAGAGGAAACATGTTCAAAAACCACTCTA

42420 GGGTGACATGATAGATCTGTATTCTAGAAAAGTTAGTTTTGCAGCAGTTGTGTCCATTGA
AAGGGACAGGATAAGGGAGATAGATAAGAAGACATGCTATGATGATAACTAGATTTGGAT
ACCAAGTGGTATGGTGGAAAGGAATGAGAGAACAGGGTCACAGATGAATGACTGCCCAAT
TTCAATCCATCATAACAGGATGTATAGGATTGCCCTTAAGTAAGATGGGGAATCCAAAA
CGAGGAACAAGTTTGTAAAGTTTTGGGGCCAATGATGAATCCATTGGGACATGTTGC
[T, C]
TTGGATATACCAATGGGACATTCATGTGAAAATGATCTCGGCAATCCTATCCTGGAATTC
AGGATAGGATCAGAATGAGGGACACAGTTTATAAGGTAACAGAATGGAGGTGATATAGA
AGATAAGGGCATAGATGAGCTTACCAAAGGGGAGAGTTTAGAATGAAAAGAAAAGACCAA
AGGCTAAGCCTGTGCTATTCTTTCTCCTCACAATACGCTTCAGACCTGGGCACAAACCAT
CAGTGAGTGTATGATAACACTACTGTGGGCAAAATCCCCCTCTATAAGGGCCTGATTTC

43256 AGAAAAACAATTAGAAATGGAGAGCTAACTCTTTGGAAATGGTCAAAGAACACGGGTCTAC
AAAACCGTCAATAAAGCGCTAAGATGCCTGGGCGGGGTCAAAAAGTCTACCTGGGCGGGG
TCAAAAAGTCTACCTGCTCAGCATATGGGGCCAGACATCTGACCTTTACCAACTCCACA
ATAACCACTTCATCTATGGATCCAGTCTTGGTATCACCTAGTCGCTGTTTTCAAGTAACA
GAATATTTGGTTCTCAATGGTAGGTGACTGGAATACAGTTACTTTCTCCACCCCTACC
[G, C]
CCAATCCTTTCTGCCCTTTATAGTTTAAATTTGCTTGTAATTTACTTGGGAATACATTTG
GGAGCCATTATAGGGAATAGAAAGGCAGACATGATGAACAGAATGCAGGGTGTTTTTTAT
TACTTCACATTGTGCTCAACAATTAGGAGGAATCTAGAAGCCCTCCCACTGGCCAGGA
ATTGGTCATAGCATGAATAAACTCAATATAGGTTGAGTATTCCTTACCCAAATGCTTGA
TACCAGAAGTGTTTTTGGATTTTGGATTTTTTTTTTGAATATTTGCATTATATACTTACC

43967 GGGTTTTGGGATTAGGGATACTCAACCAGTGGTAGGTTTGGGATGATATCAGCATGCTAA
GGTCAAAGAGACCTAGCTGGGAAGGGTGGGAGGAACATGGAATTTTCATTCTCTGGGCAC
CCCTTGAACAGTCTTACTATTAGGGCCCCAAATTTGTTCTAAGTGTGTGTGTGTGTGT
GTGTGTGTGTGAGAGAGAGAGAGAGAGAGAGAGAGAATTTCTTCTTCTTTATATTCT
AAGTTCCTCAGGACAAAATTTTGGGTTTCTTTGTATTCTCCTGCAGCTCCTCATGTAGT
[T, C]
CTAAGCAAATAAAGGAATTCATTAGGTCTTGAATTTAGAAGCCTCCCACTTCTCTATGT
AGGAGGAATCTTAGGGTGGCAAGATAAGTTGAGGACTTTTCTTCAAGCACATTTACAAA
GTAAGAGAAAATGTTGACTGTGTATATCTAAGAATGGGTGGGCTCAATGATCCCCCT
AAGTTACTCTTTACTATTATTGATTGATTGATTGATTGATTGAAGAAGCAATGTTTTGAT
TGATTGAAGAAGTAATGTTTCCAATGGCTACAGCAGACTGGAGCAAAAGAACAAAATGAA

48604 TTTTGGCTCTATCCTGGCTTCTTACACAGGGGTGTCCAGTCATCTCATCTGGTGGGAC
AGGGATAGAGCTGTGGCAGTGGAGATGAGGAAGCTCGCCTCCTAAGTGAGTCTGAATTC
TAAATATGGAGCCACTCCATAATCATTGGAGTGAATATTGGGCCATGGCCCTTTTCTT
GCCAGCTTGAGCTATGAAAAAGGATGTCTTAAGACCAGAGGCTGTGGGACCATTTCCAGC
CCCTGCAGGAATCAAAGGAGCTGACAGAATTGTTTGTGTTTTTTTACAAAATTGAAAA
[-, A]
AAAAATGTAAAATTTTTGAAAAGAAAGCCTCATTGAAAAGAAATCCCTCTCCCCAGCTGG
GCTCCCAGGCAGCCTCCTGCAGAACATCCTTAGCATTGCAGAGTTGTTCCCATGGCAACC
GAGTAAGGGGCTTTTTGTTTTCTTAGAAGATTGAATCCTTTCAACCAGAAGGTAACCAC
TGGTTCCTCCCAACAATCCCACTCCAAACCCCTACCCTATTGACTACATGACTAGT
TTTGCATTATGGATTTTTTATGCCAATTGAAAAGGCTAAATATACAGAACTGAGG

49560 TGAGGGGTTATGAGACCATAGGCTCATTTTGGGGGGGTCTAAATGCAGTATTTTTTGA
ACTGATATGGGGAAAAAAGACATTTCTGAATTGTTGTGATGTTGCAGATTCTGGGCCGT
TCCAGCATAAGCACCTTTCTTAGAGTACTTGGCTTTGTGAAGTAGTCTTATCCCCCTCT
TCCACTATTTTACATCAAGTTAAATAGAGGAAGATGCCTAGAAATGGCCGTATAGACAG
AGAAAACCTGCACTAAAACCTCCCTCCGTCATGCCTGACTCCTCTAGACTATGACCATCG
[A, T]
GGGGCCAGAAATCATATCTTAAAGATCACTGTGCCTCCAGTACCCAGCACGGTGTTTAAT
AAATGTTTGTGAATGAACGAACCTAGTAAATTTTCAAATCATTAGAGCTGAAGTATCCT
TTAAGATTCTTTAGTCCCTCATTTTACAGATAAGGAAGCTAAGGCTCAAGACATTGTGTG
GCTTGGCCAAAGGCACACAGCAAGCTAAAGGCAGAGGGAGGACAGGACCCGGCTGTCTCA
ACCCCTGGCTGTACACTTCTGCAGCATTCTAATTCTTTTACCATTCTTGCAGGGGA

52729 CCAATGGGGAAGCACCAGGGTCAGCCGCAAGGCAGAGGAGCAAGAGGAAAAACATGGACA
AGAGGCTCTACTGTGGATTTCAGTGGCAAGAAATGGGAGGGGCAGAGTAAGCAGGTTTAGG
ATTATCGGGTTTGAATGACTTGATTGAGCTGTAGGGTGTAGAGACTGCCTCTACTGTCTG
GCACCAGGGTAATTAGGCGAGCTGGATAGTGGTCTGGAGTGTGAGAGCTCCCTAAAGGA
GGTGGTTGGAGGTGTAGGTTTTGGATTGGTTGATCTGTATATGAAGGTGCACGTGCAGG
[G, T]
TGAGTCTCTACTATCACTAGAAATTGGCTGGTCCCAGGAGAAGTAGTCTCTCTAGAGAC
AGCAATGCCCCAGATGTCAAAGCATCAGAAAAATACAGAAAAAAATTAAGCATGATTA

FIGURE 3, page 44 of 61

ATTCATACTCACAGGTCTAGTTTTTGTGTAGTTAAGAGCAACCTAAAGAAGTTGATAACT
CGTGTTCAGGTGAGGTTCCAGAAATCATATTCTCAGATGAAGATTTGCATGAAGGAG
GTTTAATGCTCAAACCTAAGCCCTAAGGCTCCATACCTGTGGAGGAAGTGAAGAAGCCCA

55031 TAGTGAGGCACACTTACTTCTTAATTTGTGCCACCCACTTTTCAGGCTCCCTTAGGACAG
CCTCCACCTGCTCCTACTGTGCTTCCATCGTCCCTCTCCTCAGGCACAGGCTGAGGAGT
AATAAGAGCACCTGATATGTGTGTCAGGCCTTACTGTGTGCTAGGAATTGTGCTAAGTACTT
CCTATGAATTTTCCATTTATCTTTATAATAACTTTGTAAAGTTAGAGCCATTATTCAG
AAGGGAACCCGAGGCAATGGGAGTCAAAGCAAAGAATTTGGGCTTTTAACCATTACACT
[A, G]
TTTTGCACAAGTAGCCAGTAATGAAAAGGCTGCTATCCGGAATCATCTTTGCAAAAGGTA
ATTTCTTTAGCACTTTATCAGAAGAAGGGGCTCCTTCTCAAATTTCTGAGGGAAGAGAA
GTGGGGAAGAAAAGATGACTGAATCCAAAGCTCGGGCAGGGAAGCACATCGAGTGCCAA
GTGCGCTGCGCTGGGCTTACTGCTGACTCAGCCGCCATCTTCCCAAGTGCTTCTGGAA
TTCTCTCCTCTCGTGGGCTCAGCTCCTTCATCTTAGGAAAGAAGGTAAGATCTACA

55066 CACTTTTCAGGCTCCCTTAGGACAGCCTCCACCTGCTCCTACTGTGCTTCCCATCGTCCC
TCTCCTCAGGCACAGGCTGAGGAGTAATAAGAGCACCTGATATGTGTGTCAGGCCTTACTGT
GTGCTAGGAATTGTGCTAAGTACTTCTTATGAATTTTCCATTTATCTTTATAATAACTT
TGTAAGTTAGAGCCATTATTCAGAAGGGAACCCAGGCAATGGGAGTCAAAGCAAAG
AATTTGGGCTTTTAACCATTACACTATTTTGACAAGTAGCCAGTAATGAAAAGGCTGCT
[A, C]
TCCGAATCATCTTTGCAAAAGGTAATTTCTTTAGCACTTTATCAGAAGAAGGGGCTCC
TTCTCAAATTTCTGAGGGAAGAGAAGTGGGAAGAAAAGATGACTGAATCCAAAGCTCGG
GCAGGGAAGACACATCGAGTGCCAAGTGCCTGCGCTGGGGTCTAGTCTGACTCAGCCG
CCATCTTCCCAAGTGCTTCTGGAATTTCTCCTCTCGTGGGCTCAGCTCCTTCATCT
TAGGAAAGAAGGTAAGATCTACAGACAAATGATCTTTAAGTATCCTTAGAGCACTAC

56912 TGAAATACTTTAAACTTTGTAGCTTCCTTCAGCACAGAAGTGCGTCTCTGAACCAATTTT
AAGCAATCCTGGCTCTATCTGTGCATGTTGATTTAGCCTGTGGTTATAGTGTTAACAATT
TAGTGATTCACCTCATTTTAACTCTCTTTCCCTTTAGCAGGATCATTTTCTCTGTGTT
AAGGGATCAACATTGAGGTAAGAATGGCTAAATAATAGCATCTTCTGGAATACAAATGAC
TTTATAAATAAAGAAGATAAAGGAAGAAGTAGGATGATTTCTCAGCTCTAATACACTT
[A, G]
GCAAAATGCCATATGCTTTCTCCTGCGTGTACTGGTCAGGCCAGTTCTAGATACAATCATG
CGCTGCATAATGATGTTTTGGTCAACAGTGGATTGCATATGTGACGGTAGTCTTTAAGA
TTATAATACCATATTTTTGCTGTGCCCTTTCTAGGCTTAGATATGTTTAGATACACACAT
ACTTACCATTGTGTTCCAATTGCTACAGTTTCCAGTACAGTAACCTGTTGTACAGGTTT
GTAACCTAGGAGCAATAGGCTATACCATACAGCCTAGGTGTGTAGTAGGCTATACCATT

58480 ACTGTCCTTCTGTGTCTGAGGGAAGGCATGTAACCTCTGCTTATCTTCACCTGTGCTCT
AGATCCTGACCTTCTCTGGCAACCTCAGGGACCTTGCACCATCCATTCTTCTCGCCTAAT
GGCGAGACTCAGTCTCTCCTCTCCTTTCCACTCTCCTTGCCATTCTTAGTATCTTTT
TACAAGCAGGTCTTCCAAAGTACTGCTTGAGGTCTGAGTTGGAGGGAACATGCCTCTACC
CTACTAAAAGAGAAATTCCTCTGCAGAAGACCCAAGCTGACTGACAAATCCCTTTACTG
[C, T]
AACTGCAGCTCTAGCTCCCAACATTTTCTGTACTTACTCTCCTGCTCAGGTTCCCTGGC
ATTGCTGATGTCTTTCAGCCTTTGTGCCCTGGCCCTTTCTCCTCTCCCTCATCTAGC
ACTACCTGTCAAATCAGGCACTTACTTTAAATTTATCCCAAATTATCATTGCCATCAT
CTCCACTGTCACTTATCATATGTTTGAATAGCGTTTCCATTTCCCAAATGTTTTCGCAT
GCATTTCTCAATTGAGCCTTACGAATCCTAGAGCTGAGAAGGTAACAATTTATGAGTC

61128 ATACAAAATTAGCCAGTTTGGTGGCATGCACGTAGTCTCAGCTCCTTGGGAGGCTGA
GGCAGGAGAATTGCTTGAACATAGGAGGTGGAGGTTGCAGTGAAGTGAAGTACGCCACT
GCATCCAGACTGGGAAACAGAGTGAGACTCTGTTTTATATATATATATATACACACA
CGTACATATACATGTATATATATACACATTATTATTGAAAGCAGCCAAAGAAAATAACA
CATTATATATAGAGAAAGAGCAAATGATGAGTGACTTTATATGTATATATATGTGTGT
[G, A]
TATATATATAATGTGTATATATATACATATATATATATAGGTTAAGAACCCTTCAGCACAT
GTATACCTATGTAAACAAACCTGCATGTTTCAGCACATGTATCCAGAACTTAAAGTGA
AAAAAAGAAACCTTCTGCATGCCAGTAACTGTGCTAAGTGATTAGGATGCAATGGTA
ATAAAACAAAGTCCCTCTCCTTAAAGAATTTCTATTAGAAAGGGAACCTGGTAAATA
AAAAATAAATATATAAATTACAATTTGTGAAAAGTGCTACACATGAAGAGTGCTGAGAC

61320 TGTATATATATACACATTATTATTGAAAGCAGCCAAAGAAAATAACACATTATATATAG
AGAAAGAGCAAATGATGAGTGACTTTATATGTATATATATGTGTGTGTATATATATAA
TGTGTATATATATACATATATATATATAGGTTAAGAACCCTTCAGCACATGTATACCTATG
TAACAAACCTGCATGTTTCAGCACATGTATCCAGAACTTAAAGTGAAGAAAAAAG
AACCTTCTGCATGCCAGTAACTGTGCTAAGTGATTAGGATGCAATGGTAATAAAACAAA
[G, A]
TCCCTCTCCTTAAAGAATTTCTATTTAGAAGGGAACCTGGTAAATAAAAAATAAATAT

FIGURE 3, page 45 of 61

ATAAATTACAATTTGTGAAAAGTGTACACATGAAAGAGTGTGAGACAGACATCAATGG
ATAAACTTTAGATTGAGAAGGGCTCTGACAAAGCAACATTTAAGGTGCAACCTGAGAGAA
TAGAAGTTAAACAGGCAGATATTGGTGAAAGAGCAGTCTAGGCAGAGGGAACATCATTG
CAAAGGCCCAGGGTAAAGAAGATCCTGGTAAGGAAATGACAGTGGGAAGAGGTTAGTGTA

61444 TATATATATACATATATATATATAGGTTAAGAACCCTCAGCACATGTATACCTATGTAAC
AAACCTGCATGTTTCAGCACATGTATCCCAGAACTTAAAGTAAAAAAGAACCC
TTCTGCATGCCAGTAACCTGTGCTAAGTGATTAGGATGCAATGGTAATAAAACAAAGTCC
CTCTCCTTAAAGAAATTTCTATTTAGAAGGGAAAACTGGTAAATAAAAAATAATATATA
AATTACAATTTGTGAAAAGTGTACACATGAAAGAGTGTGAGACAGACATCAATGGATA
[A, C]
ACTTTAGATTGAGAAGGGCTCTGACAAAGCAACATTTAAGGTGCAACCTGAGAGAATAGA
AGTTAAACAGGCAGATATTGGTGAAAGAGCAGTCTAGGCAGAGGGAACATCATTGCAAA
GGCCAGGGTAAAGAAGATCCTGGTAAGGAAATGACAGTGGGAAGAGGTTAGTGAGCAG
GACTGTGGCTAGGGCCGAGAGGCAGGGAGTAGTTTGAATTTCAATGCAATAGGAAATA
TGGAGATTGAAGGCAGTTTGCATTATAAAATAATATGATTGCTATTTTAAAGCTACTT

62641 CCAGGCTGTACCAGGCACTCAGATATGACAGTGAATGAGATAGGCAACATCTTGGCCATT
GGAGAGCCTACACTGAAGTGGACATGAGGGAGTTGAAAGCAACTCTTATAGGAAATCATG
GTAAAGACGTCCTAAGAGAAGAAAGATGAAGGGCAACACATGCACGGATGCCAAACATCT
ATCAGAGAGAAAGGAATTTTACAGACCTGACCTGAATGATGAAAGGAGGTTTTGGAAAGG
AAAATAGAAGGGAAGGACAAGGAAATATCTGGGCAGCAATATTTATCTGCTGTGGTGC
[T, C]
TCACTCTCTCTCTAATCCTTTTCCACCCAGCCCCAAATTTGAAAGGATTGCAGGGAGCT
CCTGCTGGAGTCATTTCTGGTATTAATAATGTACAGAAAGGAAAGCTTTGGTCTGAGTT
TGCAGGCTTCCCTGTCTTTCATTTCTATTGTAGAAAGCAGCTTATATAAAAGATGTGCT
GTGTGGCCCTTTGAGCTGCTGTGATTGTGTAGGACCCCACTGGATGGTATTCGATGAA
TTAATCTACTGTAGCATCTCTACAAATCAAGAGGCTGGCTTCTGTTTGAATGTCCCAAG

63023 ATTAATAATGTACAGAAAGGAAAGCTTTGGTTCTGAGTTTGCAGGCTTCCCTGTCTTTCA
TTCTTATTGTAGAAAGCAGCTTATATAAAAGATGTGCTGTGTGGCCCTTTGAGCTGCTG
TGATTGTGTTAGGACCCCACTGGATGGTATTCGCATGAATTAATCTACTGTAGCATCTCT
ACAAATCAAGAGGCTGGCTTCTGTTTGAATGTCCCAAGGCTTTGTGCACAGGGCAAGCT
AAATGTCTCCCTACAGTGAAGTGAATGCCTTGGGTGCCCTTGTGCATAGGATCTGAT
[A, G]
TATAGATGCATGTCTACAATTGCACAGTGGCTGCTGGCAACATTTATTACAATCTGAATG
TGAAATGGCTATTCTGTTCAAGGATTTCTGATAAAAGTATCAGCCACAGTAGATGTATAA
GGAGCCTGGTTTCACTGCAACTGACTACAGTTATCTGATTTTTTTTTCTAGTTCATTTT
TAGTCTGTGGAGCAAAACAGAGATTTCCTCCCAATGATGTCTTTCTCAGTCACCAGGG
TGTGGTTATTTGGTTTTATGTAGAGGAGATAGAAACCAATCAGTCTAAATCATATTCTGT

63051 GGTCTGAGTTTGCAGGCTTCCCTGTCTTTCTATTCTATTGTAGAAAGCAGCTTATATAA
AAAGATGTGCTGTGTGGCCCTTTGAGCTGCTGTGATTGTGTTAGGACCCCACTGGATGGT
ATTTCGCATGAATTAATCTACTGTAGCATCTCTACAAATCAAGAGGCTGGCTTCTGTTTGA
AATGTCCCAAGGCTTTGTGCACAGGGCAAGCTAAATGTCTCCCTACAGTGAAGTGAATA
TGCCCTTGGGTGCCCTTGTGCATAGGATCTGATATATAGATGCATGTCTACAATTGCACAG
[T, C]
GGCTGCTGGCAACATTTATTACAATCTGAATGTGAAATGGCTATTCTGTTCAAGGATTCT
GATAAAAGTATCAGCCACAGTAGATGTATAAGGAGCCTGGTTTCACTGCAACTGACTAC
AGTTATCTGATTTTTTTTTCTAGTTCATTTTTAGTCTGTGGAGCAAAACAGAGATTTCCCT
CCCAAAATGATGTCTTTCTCAGTCACCAGGGTGTGGTTATTGGTTTTATGTAGAGGAG
ATAGAAACCAATCAGTCTAAATCATATTCTGTTGAAATCAGAACCAAGGATCCACAATC

64989 GGTTTAAGAAAGCAAGGTCAGGTAAGCTTCACAAAGTAAGTCAAGAAGTATTTTACCTT
TATCTTCTGAAAGAAATTTATGCAACGTTGAAATTAATTTGTTTTCAGAGATGGTCAACAGAA
TATACCAGAGAAACTATTTGGACTTAGAGCTTCCCTGGGGGAAGGTTTTTGATAAATAAT
GCAATTTCTTTAATACATAGTACTTATATTTTCTATCTTACCTTGTGACAATCTGATGA
ATTGTGTTTTTCAAGAAGTTTGCCCATGTCATCTGAGTTGTTAACTTACTACAACAAAG
[T, G]
CTTTGATAATATTTCTATATTAGCCTTTGAATGTCTATAAGATCTGTCTGATGTTCCCT
CTCTCACTTTTTTAAAGAAGTCTTGCTAGAGGTTTACCAATTTATTTTGTGTTTTATTTA
TTTTATTTTTTCTTATTTGAGACAGAGTCTCGCTTTGTGCGCCAGGTTGGAGTGCAGTGG
CTCGATCTCGGCTCACTGCAAGCTCTGCCTCCAGGTTACGCCATTCTCCTGCCTCAGC
CTCCCGAGCAGCTGGGACTACAGGCACCAGCCACCATGCCCGCTAATTTTTTGTATTTT

65929 TTAACCTTACACATTTCCCTTTAAGCACTGCCTTAGCTGTATCTCACAATTTTGATATT
GTCTTTTCATTGTCTTTTATTTCAATATATTCTAATTTTCTTGTGATTCTTCTTTGGCC
CATAGGCTGTTTGAATAATGTAGTTAGTTTCCAAATATTGGAAGACTTTTACAGATACC
TTACTATTATTGATTCTAATTTAATTTCTGCTACAATCCAAGTATATACATTATAAAGTT
TCAGCCTTTTGAATGTATTAAGAATATTACCAGAGATAAGAAGATAAGAATATTACCAG
[C, A]

FIGURE 3, page 46 of 61

GATAAGTAGGGATATTTTCATAAATAATAGACGAATTGATTCATCAAGAATATACAACAAT
CATAAATGTTGATGTGTCTAATAACAGAGTCTCAAATTATATGAAACAAAACGACAGAA
CTAAAGAGAGAAATGGCCAATCCCACAATCTTTATCTTTATCAGGTGATTTATCTTGGTG
AACATTCCCTGTGCTCTTGAAAGAAAGTGTATTCTGTAGTCATTGGGTATAAATCTTA
TATATGACAATGAGGTGATTGATAAAATTATTTAGATTGTCTATATCCTAAGTTTGTAG

66694 TCCGTTATTATTTATGCAATGTCCCTATTTATCTCTGGTCATATTCTTTATCTTGAAGTC
TTTTTAACGTATGAATGTAGCCACTTCATCCTTTTTATGCTTACCATTTCATAGTTT
ATATTTTCCATTATCTTATATTCACACTATTTATCCCTTTATACCTAAGTCCATGTCTT
GTAGACAGTATGCAGTTAATTGTGCTTGATTATTTTACTCCTTTCTGACAATTTCTGC
CTTTCCATATAATATGCTTATCAATACAGTTGGAGTTAAATCTACCGTCTTGTTATTTGT
[C, G]
ACATCTCCCATCTTTTGTGTTGTTCCCTCATTTCCTTGTATTACCTTCTTTTCAGTTA
TTTTTTTTTGTATTCCATTTTAATTCCTCAATTGGCTTTATAGCTATATATCTTTGTAT
TATTTTTTATTTGCTCTAGGGATAGCAATATGTATACTTACCACAGACAATTTAGAA
ATCATATTGTACCCTTCACATAAAATAGAAGAAGCTGCAGCAGTCTATGTCCCTTTAC
ACTCCCATCTTTGTGCTATTGTTCCGTATGTATTACATCACGTACATTGTAAATCCA

66755 TTTTAACGTATGAATGTAGCCACTTCATCCTTTTTATGCTTACCATTTCATAGTTTA
TATTTTCCATTATCTTATATTCACACTATTTATCCCTTTTACTTAAAGTCCATGTCTTG
TAGACAGTATGCAGTTAATTGTGCTTGATTATTTTACTCCTTTCTGACAATTTCTGCC
TTTCCATATAATATGCTTATCAATACAGTTGGAGTTAAATCTACCGTCTTGTTATTTGTC
ACATCTCCCATCTTTTGTGTTGTTCCCTCATTTCCTTGTATTACCTTCTTTTCAGTTA
[T, A]
TTTTTTTTTGTATTCCATTTTAATTCCTCAATTGGCTTTATAGCTATATATCTTTGTATT
ATTTTTTATTTGTTGCTCTAGGGATAGCAATATGTATACTTACCACAGACAATTTAGAAA
TCATATTGTACCCTTCACATAAAATAGAAGAAGCTGCAGCAGTCTATGTCCCTTTACA
CTCCCATCTTTTGTGCTATTGTTTCCGTATGTATTACATCACGTACATTGTAAATCCAC
AATAGAGTGTATAATCTTTTTCCAAATCCTTGTGTGAATTAATAATTTTATGAGTAGAA

66879 CAGTATGCAGTTAATTGTGCTTGATTATTTTACTCCTTTCTGACAATTTCTGCCTTTC
CATATAATATGCTTATCAATACAGTTGGAGTTAAATCTACCGTCTTGTTATTTGTCACAT
CTCCCATCTTTTGTGTTGTTCCCTCATTTCCTTGTATTACCTTCTTTTCAGTTATTTT
TTTTTGTATTCCATTTTAATTCCTCAATTGGCTTTATAGCTATATATCTTTGTATTATT
TTTTATTGTTGCTCTAGGGATAGCAATATGTATACTTACCACAGACAATTTAGAAATCA
[T, C]
ATTGTACCCTTCACATAAAATAGAAGAAGCTGCAGCAGTCTATGTCCCTTTTACTCC
CATCTTTTGTGCTATTGTTTCCGTATGTATTACATCACGTACATTGTAAATCCACAATA
GAGTGTATAATCTTTTTCCAAATCCTTGTGTGAATTAATAATTTTATGAGTAGAAAAAT
ACATATAACATTTTATTCTTACCTACATACTTACCAGTTCTGCTTTCTTTTCATTCTTAC
CTGTTTCAGTCTTATCTGTAAACCCGTTTTTCATTGTTGTCATTTCCATTAGCATTTTCAG

69156 GGCATGTCACTTCTGCCCCAAACCCCTTGGTAGCTTTCCATTGCTCTTAGAATAACTTT
GTGATCTACAACATCTTCTTCAAGGCCCCGCATGATACAAATCTGGCTATTTCTCTAGT
TTCTTATTGCACCACCTTGTCCCTCATCCACCTTTTTTTTAGTCTTCTCTCTTTCTTTGA
ACTTCTACCACCAGGTTTTTTCACAGTCTCTTCTTTCCCCATTAACAATGATCCACCATT
CTCTTTCTTTATCCACTGTTACTCATCTCTAATGAAACATCATTTCCTAAGGATGGC
[C, T]
ATTCCTGGTTCAGTCAGTCTATATTTTCATCCCCATCACATACTCTGTTTTACCTTATA
TTTTTCTTCAAAGCACTTATTTAAGTTGAATTATGTGTTGTTTATTTTATGTCTGTCT
GCCCTCACAGAATCCACAGTCCAGGAGAACAGAAATCCTGCCTCTTTTATTTATACCACA
TCCACAGTATTATTAGTGCCTGTCACCTAGTAGGTATGCAGTATGTACCTATTGAATAAA
TGAATTGACTTCTGTCTTTTAGATCGTCTACTCATTTTATCATTGATGACAAACATAATA

69280 TATTGCACCACCTTGTCCCTCATCCACCTTTTTTTTAGTCTTCTCTCTTTCTTTGAACCT
CTACCACCAGGTTTTTTCACACGTTCTTCTTTCCCCATTAACAATGATCCACCATTCTCT
TTCTTTATCCACTGTTACTCATCTCTAATGAAACATCATTTCCTAAGGATGGCCATT
CCTGGTTCAGTCAGTCTATATTTTCATCCCCATCACATACTCTTGTTTTACCTATATTT
TTCCTTCAAAGCACTTATTTAAGTTGAATTATGTGTTGTTTATTTTATGTCTGTCTGCC
[C, T]
TCACAGAATCCACAGTCCAGGAGAACAGAAATCCTGCCTCTTTTATTTATACCACATCCA
CAGTATTATTAGTGCCTGTACCTAGTAGGTATGCAGTATGTACCTATTGAATAAATGAA
TTGACTTCTGTCTTTTAGATCGTCTACTCATTTTATCATTGATGACAAACATAATACCTT
ACATTCTGTGTAGTCTTTTTCTACTCCTCAAAGAGGATTTTCTGCATAGCTCCTCTGAGCCT
CACAAAACCCCTTTAAGGAAGATTGTGAATATTATCAGATAAAGATTGTGAGACACAGAAA

70647 TCCAGTCATTTATAAAAGATGAAGAGGAGAACAGGTAGGCCAAAGTGGCTTTGTACTAT
TAAAGGCTGCTTGATTTCTAAGTACATGTTCTTTGCCACCTTTCTGCCATTCCACATTCT
AGAAGCCATGGGTAAAGTCAGCAGGGATCTTAACATGATAACATTGGTTTTAGGAGGTC
TCGTGCATAATGGACCAGACTTAGAGCACAAATGCTGTAAGGTAGTGATTTAGGTGAGCAG
CAGATTTCTGGCTTTAGGAGTTTATTATCAGATGCTTTTTAAACGACTTGTGGCCAGGAT

FIGURE 3, page 47 of 61

[C, T]
 CCTGCACCCATGGGAAGCATTGTAGCCTTAGAACTCTGGGAATTCTGAATATAATTCCTG
 AATCAATCGTAAGGATGCATATCTGATGCTTAGTGCAAACCAAGAGGCAGAAATATTGCA
 GGCAGTGTATCCTTGAAAAACAAATCTAGGTCAATTTTCCTGCCATGCTTCAAGCTTACTT
 TTCCATCCTTCCTGATGGTAGTACTAACTACATTTGTAGACCATTACGTGGTCAACACT
 GTGCTAAGCTGTTAGCTTCATTCTCTATGAGACAGGCACTCTTAGCCCACTTTACAATT

71867 TCTGTCTGGCTTTTCTCAACCTTTCTCTTCTGCACCTTTCTTGATATAATCAAAGCACTA
 CCAGGAACCTCCAGAGTCGGCACCTTTTCATTTTGTGTTTCATTTAATTATTTCTCAGC
 TGCTAAGTGTGTTGACTGTTTAAGGACTCTAGTGGTAAATATTGTCTTTAGCCTGGCAG
 AAGCTGTGGTTTCCTTTGATGAGCTCACACGGTGTGGCTTTTAAGATGCTGCTGACCAGG
 ACAGCTGACTGTCCCCAGTGGGTGCAGTCCCCAGCAGTGGGCTGGACCCCTTCCAGAAAG
 [C, T]
 GCTGCTGGGCCAAGAGGCTTCTCCAACCTCCCGCTGCCCCATCTAACCAACACCTCAG
 TCTCTTCTCCACCTGCTTCCCTGCCCTCTTCTTTCCCTCGCAGACACTTTCTTCTGCCT
 GGCAAAAGGAATCTTGTTCATGGAAGCCTCATTAAATCTGCATCTGCTCAGTTTGGG
 TTTGATCAGGCTGCCAGAAATATTTTAGCCCATGCAGTTGCGTAATGAGATAGAGATT
 GGGGAAAGGGGAGGTGACTGTATAGGCAGAGGGTTTTTTTAAAAAAGTGAGAAAGAG

71900 ACTTTCCTTGATATAATCAAAGCACTACCAGGAACCTCCAGAGTCGGCACCTTTTCATTTT
 TGTGTTTTTCATTTAATTATTTCTCAGCTGCTAAGTGTGTTGACTGTTTAAGGGACTCTAGT
 GGTAATATTTGTCTTTAGCCTGGCAGAAGCTGTGGTTTCTTTGATGAGCTCACACGGT
 GTGGCTTTTAAGATGCTGCTGACCAAGGACAGCTGACTGTCCCCAGTGGGTGCAGTCCCCA
 GCAGTGGGCTGGACCCCTTCCAGAAAGCGCTGCTGGGCCAAGAGGCTTCTCCAACCTTCC
 [C, T]
 GCTGCCCCCATCTAACCAACACCTCAGTCTCTTCTCCACCTGCTTCCCTGCCCTCTTCCT
 TTCCCTCGCAGACACTTTCTTCTGCTGGCAAAAGGAATCTTGTTCATGGAAGCCTCA
 TTAATCTGCATCTTGCTCAGTTTGGGTTTGATCAGGCTGCCAGAAGTATTTTAGCCC
 ATGCAGTTGCGTAATGAGATAGAGATTGGGGAAAGGGGAGGTGACTGTATAGGCAGAGG
 GTTTTTTTAAAAAAGTGAGAAAGAGAAGGAAAACCTCTAAAGAAAAGAGTTTTATGGA

71901 CTTTCTTGATATAATCAAAGCACTACCAGGAACCTCCAGAGTCGGCACCTTTTCATTTT
 GTGTTTTTCATTTAATTATTTCTCAGCTGCTAAGTGTGTTGACTGTTTAAGGGACTCTAGTG
 GTAAATATTTGTCTTTAGCCTGGCAGAAGCTGTGGTTTCTTTGATGAGCTCACACGGTG
 TGGCTTTTAAGATGCTGCTGACCAAGGACAGCTGACTGTCCCCAGTGGGTGCAGTCCCCAG
 CAGTGGGCTGGACCCCTTCCAGAAAGCGCTGCTGGGCCAAGAGGCTTCTCCAACCTTCCC
 [G, A]
 CTGCCCCCATCTAACCAACACCTCAGTCTCTTCTCCACCTGCTTCCCTGCCCTCTTCCTT
 TCCCTCGCAGACACTTTCTTCTGCTGGCAAAAGGAATCTTGTTCATGGAAGCCTCAT
 TAAATCTGCATCTTGTCTCAGTTTGGGTTTGATCAGGCTGCCAGAAGTATTTTAGCCCA
 TGCAGTTGCGTAATGAGATAGAGATTGGGGAAAGGGGAGGTGACTGTATAGGCAGAGGG
 TTTTTTTAAAAAAGTGAGAAAGAGAAGGAAAACCTCTAAAGAAAAGAGTTTTATGGAA

72369 TATTTTATAGCCATGCAGTTGCGTAATGAGATAGAGATTGGGGAAAGGGGAGGTGACTG
 TATAGGCAGAGGGTTTTTTTAAAAAAGTGAGAAAGAGAAGGAAAACCTCTAAAGAAAA
 GAGTTTTATGGAATTGGAAGAAGGATGGAGCACCTCTTTTGGGAGCATGAGGCTGGTGT
 CTCTGGTTAGCTCTTCCACTGGAAGCCCATGGACACTTGCCATAATACCTGCTCTGGTC
 ACATGTCAGGGGAACCTCTGATCTCCCTTCCATGAGCTTAGTTGGCCAGCCAGGGTGA
 [C, T]
 ACTTATGCTAGGGAGTGTGATTGATGTTGCTGCTTACAGATTTCCCTCCCACAGACCTG
 ATGGGGCAGCCAGGATAGTGGCAGAGAAGAAGACAGAGCAATAGCAGGAAAGAGAGGACA
 ACACCTAACACATTGGAGGTTTATGTTCAAGACGGGATCTAGGGGGTCAGAGAAAGCACA
 CCTACCATGTAATTGGTGCTGGAATCTGATGCCAAGTGACCCCTTGGCTTCTGAGGTTCT
 GAGAATCTTGCTTGCTTTTACGCCAGACTATGCCCTCACCTGCCCTGTACTTTAAA

72992 TGTTTGCATTGGATTGTTGGAGTGTGTGTGCATGTTGTTGTGTTCTTGATTACAAGACA
 AAGAGATTAATAAAAAAACCATGCAAGCTGTACAGCTAATGTTTATTGAACCTTTACTA
 TGCCACATGGTGTTTTAAGCATTCTATATGTGTTAACTCATTTTCCCTAATTTCTATGGAC
 TAGACACTTAAACAGTCTCCATTGTACAAACAAGGAACTGAGGCACAGAGAGGTTGGGA
 AACTCATTTGAGGTCCTCCAGCTAATTAATAGTGGAGCCAGGTTTTGTACCCAGACAACC
 [T, G]
 GATTTGAGAATCTGCAGTCTTAGATTAGTAACGTGTTGTTGGCCTGTACACATTTTAAA
 TGACATTTCTGTACACAGAACCATTTATAGTAACCTTGATTTGTTGAGCTGAAAGCAGTCT
 GCAGATGTGCTGCTGGGATTTTCATTCATCTTCAAAGAGGTGTTTTTTTTTTTTTAAAG
 GAAAATGCTTTTCTGAGGGTGGTATCTAAATTCATAAAATCTTTACGATCAAGATTTTC
 ACAAAATTCATTCTGACTCTGTTGCATTGCCCTTCTTCCCATATTCCCAGTTAGTTTGTA

73154 TTCCCTAATTTCTATGGACTAGACACTTAAACAGTCTCCATTGTACAAACAAGGAACTGA
 GGCACAGAGAGTTGGGAAACTCATTGAGGTCCTCCAGCTAATTAATAGTGGAGCCAGG
 TTTTGTACCCAGACAACCTGATTTGAGAATCTGCAGTCTTAGATTAGTAACGTGTTGTTG
 GCCTGTACACATTTTAAATGACATTTCTGTACACAGAACCATTTATAGTAACCTTGTATT

FIGURE 3, page 48 of 61

GTTCAGCTGAAAGCAGTCTGCAGATGTGCTGCTGGGATTTTCATTCATCTTCAAAGAGGTG
[-,T]
TTTTTTTTTTTTTAAAGGAAATGCTTTTCTGAGGGTGGTATCTAAATTCATAAAATC
TTTACGATCAAGATTTTCACAAATTTTCATTCTGACTCTGTTGCATTGCCCTTCTTCCCAT
ATTCACAGTTAGTTTGTATTGATTGCTGCATCTCCCTTGAGCCCATGGTCCCCCACAACA
TTTCTTGACAGACTGTGCTCCTTACACTGTGAGGCAGCAGGAGCCTCTCTAGCGGC
CAGCCACAGTCCCTGCAGCTCCTTCTCAGGACGTTTAAATTTCCACATTCTATGCAGT

73164 CTATGGACTAGACACTTAAACAGTCTCCATTGTACAAACAAGGAACTGAGGCACAGAGA
GGTTGGGAAACTCATTGAGGTCTCCAGCTAATTAATAGTGGAGCCAGGTTTGTACCC
AGACAACCTGATTGAGAACTCTGCAGTCTAGATTAGTAACGTGTTGTTGGCCTGTCA
CATTTTAAATGACATTCTGTACACAGAACCATTTATAGTAACTTTGTATTGTTGAGCTGA
AAGCAGTCTGCAGATGTGCTGCTGGGATTTTCATTCATCTTCAAAGAGGTGTTTTTTTTT
[-,T]
TTTTTAAAGGAAATGCTTTTCTGAGGGTGGTATCTAAATTCATAAAATCTTTACGATCA
AGATTTTCACAAATTTTCATTCTGACTCTGTTGCATTGCCCTTCTTCCCATATTTCCAGTT
AGTTTGTATTGATTGCTGCATCTCCCTTGAGCCCATGGTCCCCCACAACATTTCTTGCA
AACTGTGCTCCTGCCTTACACTGTGAGGCAGCAGGAGCCTCTCTAGCGGCCAGCCACAG
TCCTGCAGTCTCTTCTCAGGACGTTTAAATTTCCACATTTCTATGCAGTTACCTCACAG

74149 TTTGCTCAAGGTACATAACTAGTAAGTGGGTGGAGCTGTGATGTGAAACTGGGCAGTCT
GATTCTGGGACCTGTGCTCTTAATCACCATCTATATTGCCTCCTACTTGAAACATCCA
GGGAAAATGTTGAGATAGATCAGCTGAAATCTTCTTGACAGTAAGCAGGGGCCACCTG
TCCTGGAGTTACATTTCATCTTGTTCATTGTCAACGATTGTGTTGAGTACACCTCTTC
AGCCCAAGAACTTACCTGGGTGCTGTGACAATTGGACATGACTAGGAACAACCAAGTGACA
[T,A]
TGTAGCCCATCCAACACAGGGTAGGAAGTGGATGCTTGTCACTCTCTTTTGGTTATAAG
AAGCAGGAACCCAGTAAGGCACCTTTTATATATCTATAAAGTTGAATATATAAGATATA
TGGGGGCCAGGCACAGTGGCTCACACCTGTAATCCGAACATTTTGGGAGCCCAAAGCAGG
TGGATCACCTGAGGTGAGGAGTTCAAGACCAGCTGACCAACATGGTGAACCCCATCTT
TACTAAAAATACAAAATTAGCTGGGCGTGGTGGCACACACCTGTAGTCCCACTACTTG

74171 GTAAGTGGGTGGAGCTGTGATGTGAAACTGGGCAGTCTGATTCTGGGACCTGTGCTCTTA
ATCACCATCTATATTGCCTCCTACTTGAAACATCCAGGAAAATGTTGAGATAGATCA
GCTGAAATCTTCTTGACAGTAAGCAGGGGCCACCTGTCTGGAGTTACATTTCATCTTG
TTCATTGTCAACGATTGTGTTGAGTACACCTCTTCAGCCCAAGAACTTACCTGGGTG
CTGTGACAATTGGACATGACTAGGAACAACCAAGTACATTGTAGCCCATCCAACACAGG
[G,A]
TAGGAAGTGGATGCTTGTCACTCTCTTTTGGTTATAAGAAGCAGGAACCCAGTAAAGGCA
CCTTTTATATATCTATAAAGTTGAATATATAAGATATATGGGGGCCAGGCACAGTGGCTC
ACACCTGTAATCCGAACATTTTGGGAGCCCAAAGCAGGTGGATCACCTGAGGTGAGGAGT
TCAAGACCAGCTGACCAACATGGTGAACCCCATCTTACTAAAAATACAAAATTAGC
TGGGCGTGGTGGCACACACCTGTAGTCCCACTACTTGGGAGGCTGAGGCAGGATACTTG

74918 TAACAGGTGCTGAAAACAGGAAGTGGGAAGTGGCAGTACCTTCCTGTCTTTTCCCCTGG
AACCAACCGGTTTCTTACTTGCTTCTCTGCACTCTGTCTCATTTCCTCTCTCTTCA
GATGATTTTTCATTGTTGCATCACACATAGAAAATCAGGATCCACCCTCCCAAGTTT
ACATATCGTTGTTTTCAGGCAGCCATAGTATCCTTAAACTCCACATTCAGGGAGAAAGC
TTGGGTCAAGGATTACGCCAAAGGGCAGCGAAATGGAGTAAAGATGCAACTGCCAGGTCT
[A,G]
TGGGCAGCAAGGAGGCCGGAAGGAAGCCGCTGTTGTGGTCCAAGTGACAATTCAACAGC
TCAAAGCATAAGTAAGTTGTGTGCTTTTACAGATGGAGAACTGAGGCACAGAAGGAAC
CTGGCTGGGGTCCAGGTCTTGGCCTTGTGTCAATGCTAGGTCACTGGATGTGGCGTCT
GATTTCTACAGGAAATGTGGTTTCTTACTTTGTCCAGAGCCCACTCAGAGCACTGGCT
GGCCAGGGGGTCTTAGGCCCTCTTAGGATAGTCTCAGGCCAACAGCCCCAGGACAGAAG

75386 GGATGTGGCGTCTGATTCTACAGGAAATGTGGTTTCTCTACTTTGTCCCAGAGCCCACT
CAGAGCACTGGCTGGCCAGGGGGTCTTAGGGCCCTCTTAGGATAGTCTCAGGCCAACAGC
CCCAGGACAGAAGCAACCAAGTGAAGTTATGAAAGAAAGCTCTTGGCTGATCTGTCAAT
GGCACCCTTGTAGAGCCAATACTAGAACACCTGGATTGAATACTCATCTCCAAACCT
GTGTTCTTTCTACCAGTGACAAGCCCTTGTAAACCTCACACGCTCTATGAGGTGAGC
[G,A]
CTTGCAGATCCACACTTTAGATAAGCAAATGGAGGCTCAGAGGGTAAGCAGCTAGTTCAA
GGTTATGCACCTGAGCCAGGATGTGGACACAGCTCTGTGTCTGATTCTTAAGGGCTGTG
CTTTAGCCACTTTGCAATACTGTGCTGTCTGCTTCATTTCTCATCTGTGAGATGGGAA
CGATAATACTCAACTCACATGGATACTGTATGAGGAAAAACAGATAAAGAGAGAAAGT
GCTTTGAAAACATAAGCAGCCCTGGCAGATGGGAATTATTTTGGCTGTGACACACATCC

77751 CAATGCCAATGTTTCTGAAGCCCATATTAAATGCCAAATCTGAGTCAGCTACTGGAGGT
AGAGACATGAATAAGATGGTCCATATTATTTTAGAGGATCTTTGGTTGCAAAGGGCAGA
CACCAGCTTGAATTCATTTGGAGAAATTGGGATTTTTTTGGCTGTGACACACATCC

FIGURE 3, page 49 of 61

[illegible]

78264
ACCTTAAGGAGCTTTCTGTCTAGAGGGAGGTATGGACATGGACAAGTAAATCAACAGCTAC
AAAGCAGAGCTGCCAGCTCTGCAACACAAGAGCCCTGAGAGGCATGACAGGGGCCAGGGTG
GGGATCCATCTGTGGTCTGTGAATGAGGAGGGGCATCAGGAAGAAGTATCCAGGAGAG
CTGAGGGACACTTGAGCACACCCTCAAAGAATGACTGGGGTTCATGAGGTATACAAGGGA
GGAAGTGCACCCGAGACAGAACAATCACATAAGCAAAAATGCAGAAGAATATGAGGATC
[G,T]
GGGAAGGGCAAGTAGCTCAGTAGTGTGGAGGCCAAGGGACACGAAGGAAGGTGATAAAG
CCCTGATGTTAAGGATAGAAAAATCAAAGTCCTTTGAAATCATGTGGAGTTAGGATCTC
AAGAACCCTACAAGGATTTCTTTAGAATAGAATCAAAAGAAAAACAAGTTTACAGTCTGT
GAGGGTTGCATAGGAAGTAACTGGTGAAGATGTTGGCTTGAAGAACACATATCCATAA
CACAAAGTGTTGTTAGAGATTGGGGGGAAGGGAGAGAAAATCTCAAATTGTCTCAGTAA

83609 TTTGGGCAATTGTAGCAATTTTAAACTATGTTAGATGGCTAGAGATTCTTGAGAATATT
TCTTTTCTTGAAAAATCATAAGGCTTTGGATAGTGGTACCTATAGAAGCTGACATCAGCA
GCAGCCTGCCTCCAGTCGATCAGGGCCTTTGGAACCTCACGGGGCTCCTCTACTGACAGC
CCCATCGGTTTCCCTCCAGCACAGTAACTCAGCATTGACTCTGGGTAGTAGAGGGTGT
TTATGGAATCTGATTCACTCAGAAAGAGGTGGATGCAAACATTTCCAGAGCAGAAGG
[C,T]
TTGGCATGTCTGGTCTTAGGCAGAGGGAAC TGGAGATACTTGTCTATTGTTCTTGAGAT
TCCAGCAAAAATAGCCCATTTACAGAGGAAGAAGATATCAGGTCAAATGAAGGCTTTGGTG
CTACAACATTTGTCTTAGAAAAAAAAGAAAGAAATTTGGCCAAGTGCAGTGGCTCAGCACT
TTGGGAGGCTGAGGGGGGCAGACCTATTGAGATCAGGAGTTCGAGACAGCCCTGGCCAAAC
ATGGCGCAAACTCCGTCTCTACCAAAAAGTATTAATAAATAGCCGAGTGTGGTGGCGGGCT

87770 CTCCCTACCTGTCCCTCCTTGACCCACAGAAAAATTGCCGGGATATGAAAGTTAATTATG
ACCCAAGGGAATTGGTACAGATGGGGAAGAAAGAAATGCATTCAAGAGCATTTCCATCAG
TATTGAAATTACACAGAAGGCTGGTGAAATTTGGGCTATCCATTCTTGCCTCCCTCTGTGC
CCATAATTCCTTGGGCTCCTTCAATTTCAATTTCCCTTTGGTTCAGAGGAATGCTTGATG
GCTTAAGCTAGCCTCAGTTGGCCAAGCATTGGAGAAACAGAGAGGTGTATGACACAGCTA
[C,T]
ACTCCCATTGGGGCTTACAGGGCAAGGTGAGAGAAGACAGAAGTTGTATGTGCTGGGTGCC
ACGTGGTAGCTACAACTAGAAATGAGACCAGGTTCTGGAGAGGGAAGAGGGCTTGCAGAC
CTGAGTCATGGGGACAGTTTCTTCAGGAATGGGATCTCAGCTCTGCCCTGTATGCAGGG
CTTACATAATAAATATGTTTCTTGTGTGTGTATTGTTGATTAAAGAAATTTGT
TTTAAGAAGATTTTGTAAAAACAACCTGAACAAATGCAATCTCCTGCCAGAGCAGGCAGCA

FIGURE 3, page 50 of 61

TCCTTGGCCTCCTTCAATTTTCATTTTCCCTTTGGTTCAGAGGAATGCTTGATGGCTTAAG
CTAGCCTCAGTTGGCCAAAGCATTGGAGAAACAGAGAGGTGTATGACACAGCTACACTCCC
ATGGGGCTTACAGGGCAAGGTGAGAGAAGACAGAAGTTGTATGTGCTGGGTGCCACGTGG
[T, C]
AGCTACAAACTAGAAATGAGACCAGGTTCCGGAAGAGGAAGAGGGCTTGACAGACCTGAGTC
ATGGGGCAGATTTCTTCAGGAAATGGGATCTCAGCTCTGCCTTGTATGCAGGGCTTACAT
AATAAATATGTTTCATTGTTGTTGTTGTTATTTGTTGATTAAATAAGATTTTGTTTTAAGA
AGATTTTGTAAAAACAACCTGAACAAATGCAATCTCCTGCCAGAGCAGGCAGCAGCAAAGG
AGATTAGGAATATAACCCCTTGGAGACGTTCCCTTACCTACCTGGTGTGCTGGATTACCTA

87866 TGCATTCAAGAGCATTTCATCAGTATTGAAATTACACAGAAGGCTGGTGAATTTGGGCT
ATCCATTCTTGCCTCCCTCTGTGCCCATAATTCCTTGGCCTCCTTCAATTTTCATTTTCCC
TTTGGTTCAGAGGAATGCTTGATGGCTTAAGCTAGCCTCAGTTGGCCAAGCATTGGAGAA
ACAGAGAGGTGTATGACACAGCTACACTCCCATGGGGCTTACAGGGCAAGGTGAGAGAAG
ACAGAAGTTGTATGTGCTGGGTGCCACGTGGTAGCTACAACTAGAAATGAGACCAGGTT
[C, T]
GGAAGAGGAAGAGGGCTTGACAGACCTGAGTCATGGGGACAGTTTCTTCAGGAAATGGGAT
CTCAGCTCTGCCTTGTATGCAGGGCTTACATAATAAATATGTTTCATTGTTGTTGTTGTT
ATTGTTGATTAAATAAGATTTTGTTTTAAAGAAGATTTTGTAAAAACAACCTGAACAAATGC
AATCTCCTGCCAGAGCAGGCAGCAGCAAAGGAGATTAGGAATATAACCCCTTGGAGACG
TTCTTCACCTACCTGGTGTGCTGGATTACCTAAAAGCTTCAGCTAAGTAGGGTCACCCCCC

88238 CTTGTATGCAGGGCTTACATAATAAATATGTTTCATTGTTGTTGTTGTTATTGTTGATT
AATAAGATTTTGTTTTAAAGAAGATTTTGTAAAAACAACCTGAACAAATGCAATCTCCTGCC
AGAGCAGGCAGCAGCAAAGGAGATTAGGAATATAACCCCTTGGAGACGTTCCCTTACCT
ACCTGGTGTGATTACCTAAAAGCTTCAGCTAAGTAGGGTCACCCCCCAAGAAATAT
TTTAAAAAATGAAATCTGATATTTTAAAGAAATCTTATCAAGGATATTTAATTGGACT
[A, C]
TTTACACCTATTTAGGGTCAGTCGGTTTTTGGACAAGTATGCAGGGGTCTTGGAAATCAGAC
CACTGGGGTCAAATCCTAGTTCTGTCACCTTCCTAGCTGGGTGACCTTGGACAAAGTTACC
TGACTTCTAATAGCTTCAGATTCCTCATGGGCAAAATAGAAATGCTACTAGTACTTAATA
GTGCTCTGAGAAGGATTCAATGAGAAGGATTAATGTATGTAAAGCACAGTGTTCGCCA
TAGGAAGCTGTTATTTATAAGGGAGGGGAGCATCCTAAGGTCTCCGAATTTAGGAGAAC

89219 AGAGGGCAGTTGGAAGAACTTCACAAGACAATCCAGCCTGATTGTTTTGACATGCCTGACT
TCAGGCTGCTAAAAATGAGCTCGAGGAATCAGATAGGAAAAAGAGATAGGTGATGCAATT
TTATTCATCTCCCAATTTTCTGAGTCAAGAGTTGTTTGTAACTCCAGTTAAATTAGT
ATTTATCCAAATTTCTGGGTGCTTGTCCAAAGAAAAGTACCCAGATCTACAAATTAGA
ATCTGGGACTGGGACTTAGGAATTGGCACTTTACAATTATACCAGATGTTTCTAATATG
[A, G]
GTACTTCAACCACTACCTTTATAGAAGTGTGCTGACCTAGGACCTCTCTTCTGGCAGGTGAA
GTGGAAGGAGGTTTTGTCGAAGGGAGATTCTCCACTTCAACTTGAGTGTCTTGGCTTGT
TCCGCTTTGTTTGGTTCTATTTCACCAAGGCTTTTCATCTTCACATAAATTTTCTTCAGC
TTTAAATAAATTAGTTTTTGGTAACCATTTGGTATACTGGAAGAACATTAGATTTGGAGTCC
AGGTGGCTTGAGTTCAATTTCTGCTCTGCCATTTACCAGCTGTGTGACATTGGGCAAGT

89331 ATGCAATTTTATTCATCTCCCAATTTTCTGAGTCAAGAGTTGTTTGTAACTCCAGTT
AAATTAGTATTATCCAAATTTCTGGGTGCTTGTCCAAAGAAAAGTACCCAGATCTAC
AAATTAGAATCTGGGACTGGGACTTAGGAATTGGCACTTTTACAATTATACCAGATGTTT
CTAATATGAGTACTTCAACCACTACCTTTATAGAAGTGTGCTAGGACCTCTCTCTG
GCAGGTGAAGTGAAGGAGGTTTTGTGCAAGGGAGATTCTCCACTTCAACTTGAGTGTCT
[T, C]
GGCTTGTATCCGCTTTGTTTGGTTCTATTTACCAAAGGCTTTTCATCTTCACATAAATTT
TCTTCAGCTTTAAATAATTAGTTTTGGTAACCATTTGGTATACTGGAAAGAACATTAGATT
TGGAGTCCAGGTGGCTTGAGTTCAATTTCTGCTCTGCCATTTACCAGCTGTGTGACATT
GGGCAAGTTGCCAACCTATCTATGTCATTTCTCATGTAAGATAATCCCACTTACCAG
GCCACTTTTGGAGACCAAGTGAATGATGTGTAACCATTTAGGAACACTGGATCATTTCT

90794 GATTTGGCCAAGGTCACACAGCTATAAGCAGTAGAACTAAGATTTTAACTCAAGTTTCTA
TGGCCCCAGAATTTATGTGTTTCTCTCCATACCACAGGGACAGGTGCAAGTGAGAGAT
TTTGCTGGAAGCACTGGGCTTTTGGAGCAGGCCATATAAAATTTCTGAGCCAGAGCTCA
ACTAAATATTGGAAGAGACTGGGCCAAATATAAGGCTTCTATCTAAGCAGCACCTGTGT
TTCTCAAGGACTGAGGAAATGAAGGGGAGGGTTGGCAAGGCTGCATTTCCAGGGTGC
[A, G]
TGATTATATGGCATGGGGGTGGGGGCCATTATGATGCCCGGACATGGAACCTTACACCACT
GCAGAAAGGGTGTGATTAGAAGCCCTAAGCCAGAGAATGTTCAAGTGTGATAAATGCCATT
ATTTTTCCTTCATTTCAATAGATTTTTTTTTTAGATGGAGTCTCACTCTGTCGCCC
AGGCTGGAGTGCAGTGGCACCATCTCAGCTCAGGTAACCTCTGCCTCCTGGGTTCAGC
AATCTTGTGGTCCAGTTCTGAGTAGCTGGGATTACAGATGTGCACCACCACGCTTG

92404 TGCTCTGCTACCTACCTGCCAGCTGTTTCCAGGGATGTGGTAAAGATGAATGGGCAAGA

FIGURE 3, page 51 of 61

TCTGGGAAAGTGTGTTTGAATCCTTGATTAAAGGCCCTCCAGGCAGATGTAGAATTTTAA
 ATGTGTTATATTACTGCCACTATTGTTATGCTTTCTTTTATCACCCAGAAATTCACCAT
 CTCTGTGTTTACAGTGAAAGTCTGCTGACTCTTACCTGCCCTGAATGGCATTGGAAAG
 GTAGCAGCCCTGAGATGTCCATATAAACAACATGTTTTTAACCAAGGGATCAGGAGGC
 [C, T]
 TTCTGGCTGGCTCCTGTCTGCTGCTCATCACCTCTCTATAACTCTAGGCTTTCCCAAGC
 TTATTTTATTTCCATCAATAGGACAGGAATATGTAATGTCTGCTTGAATGAGTATTG
 GCTACAAGCCATCTGCTCTGAACAGAGGTGAAAAGTGGAAATCGGAGGAAGGGCAGATG
 TCTTTTGCAAGGGAACAGACTGTTTTCTGCCACTGCACTCTGCCAGGCAAAAGAGTAA
 AGGAACAGCACTCAGGAGAATTCAGTGAAGCGAGGGCAGGGTGCAAAAGGAACCTTGAGAA

92672 CAAACATGTTTTTAACCAAGGGATCAGGAGGCCCTTCTGGCTGGCTCCTGTCTGCTGGTCT
 ATCACCTCTCTATAACTCTAGGCTTTCCCAAGCTTATTTTATTTCCATCAATAGGACAGG
 AATATGTAATGTCTGCTTGAATGAGTATTGGCTACAAGCCATCTGCTCTGAACAGA
 TGTGAAAAGTGGAAATCGGAGGAAGGGCAGATGCTTTTGCAAGGGAACAGACTGTTTT
 CTGCCACTGCACTCTGCCAGGCAAAAGAGTAAAGGAACAGCACTCAGGAGAATTCAGTG
 [A, C]
 AGCGAGGGCAGGGTGCAAAAGGAACCTTGAGAAATGGTACTGGGACCCAAAATCAGATTCT
 TGGCATTCTTGGGAAAGAAATGGGCATGGGTGGGGTTTTATCTGTCAATAAAAGCATC
 CAGAAATGGGGCTAGAAGGAAGTAAATTCAGTTGCCACCTCTGCCTACTGGACAGCCACGG
 AGAAGTCTCTCTTATCCAGGTGAGGAGCCCTCCGGAGTACATACTGATACCATTTGGTT
 CTCCACACATACCCCATGGAGATAAAACAGGACCTGGAAGCCCTGTCCGTGTTTAA

92684 TAACCAAGGGATCAGGAGGCCCTTCTGGCTGGCTCCTGTCTGCTGGTCTCATCACCTCTCTA
 TAACCTCTAGGCTTTCCCAAGCTTATTTTATTTCCATCAATAGGACAGGAATATGTAATG
 TCCTGCTTGAATGAGTATTGGCTACAAGCCATCTGCTCTGAACAGAGGTGAAAAGTGG
 AAATCGGAGGAAGGGCAGATGTCTTTTGCAAGGGAACAGACTGTTTTCTGCCACTGCAC
 TCTGCCCAGGCAAAAGAGTAAAGGAACAGCACTCAGGAGAATTCAGTGAAGCGAGGGCAG
 [A, G]
 GTGCAAAAGGAACCTTGAGAAATGGTACTGGGACCCAAAATCAGATTCTGGCATTCTGG
 GAAAAGAAATGGGCATGGGTGGGGTTTTATCTGTCAATAAAAGCATCCAGAATGGGGCT
 AGAAGGAAGTAAATTCAGTTGCCACCTCTGCCTACTGGACAGCCACGGAGAATCTCTCT
 TATCCAAGGTGAGGAGCCCTCCGGAGTACATACTGATACCATTTGGTTCTCCACACATA
 CCCCCATGGAGATAAAACAGGACCTGGAAGCCCTGTCCGTGTTTAAACCAATGGGATTG

93132 CTGCCTACTGGACAGCCACGGAGAACTTCTCCTTATCCAAGGTGAGGAGCCCTCCGGAG
 TACATACTGATACCATTTGGTTCTCCACACATACCCCATGGAGATAAAACAGGACCCCT
 GGAAGCCCTGTCCGTGTTTAAACCAATGGGATTGAAACATGGAATGAATGCCCCACAAT
 CCACCCCTGTGAGAGACCAAGAGCAGTGTGGATTAAACAGGGAATGTTACCCTGAAAAGG
 CATTACAGCTTCCACTGGGGCAGCAGGTACAGTGCAAGATGATCCCACTTAAATTCCTAA
 [G, C]
 ACAGGAAATAAGGAAAGATGTTGTGGAACTCAAGACCTCTCAAAGCATACTCCTTTGTA
 GTTCTTCCGCAGACCAAGCCGAAATTCAGAAAACACCTACCTGGTTCCAAACAGCA
 CCTGCCAAACTTCTCACCCCTTCTGACCCCTGTCTGGGAGTTAAGAAAAAAAATCAC
 TTTATTGGTTGCTCCAGTTATAACTTAAACAGACAGACCATCATCAAATTAAGTGACATG
 TACGACTGCTTATTGTATGCCAGTTACTGTGCTGTGGGGTTTTGGTTCCATTATCTCATT

93537 TGGTTCCAAACAGCACCTGCCAACTTCTCACCCCTCTCTGACCCCTGTCTGGGAGTTA
 AGAAAAAATCACTTTATTTGGTTGCTCCAGTTATAACTTAAACAGACAGACCATCAT
 CAAATTAAGTGACATGTACGACTGCTTATTGTATGCCAGTTACTGTGCTGTGGGGTTTTG
 GTTCCATTATCTCATTATACTCTCAAAAACCCCTGTAGGTAGGTTTTATTATTGCACT
 CATCTTAGATTAAAGGAACTGAGGCTCATAGAGATTGCGTAATTTGTCAAAGCCCTAA
 [A, T]
 CATAATTACTGCCTCCAGATGTCTCTGATTCTAAGGCCAGGCTCTTAATCAGTAAATGA
 TCAATGAATAATGATTTTCATGGCATCTGTCATCGGAAAGAACATGGAGAATATGCTT
 AACCAAAGTCATAACCAATAAATGAACCTTGACAGCAGAGCCGTGATTCTAGCCAAGATG
 ACTATTTTCATGCATGTTTTGAAGGCCAGGAAAAGGAGGTAGACTTGTGTTGGGAAGGGA
 AACAGGAGCTATCAAGGTGAACCTTTCTAAGAGTAGCCCAATAATAGTGCTCGGGAGGG

93557 CCAAACCTTCTCACCCCTCTCTGACCCCTGTCTGGGAGTTAAGAAAAAATCACTTTA
 TTGGTTGCTCCAGTTATAACTTAAACAGACAGACCATCATCAAATTAAGTGACATGTACG
 ACTGCTTATTGTATGCCAGTTACTGTGCTGTGGGGTTTTGGTTCCATTATCTCATTTAAT
 CCTCTCAAAAACCCCTGTAGGTAGGTTTTATTATTGCACTCATCTTAGATTAAAGGAACT
 GAGGCTCATAGAGATTGCGTAATTTGTCAAAGCCCTAAACATAATTACTGCCTCCAGA
 [T, C]
 GTCTCTGATTCTAAGGCCAGGCTCTTAATCAGTAAATGATCAAATGAATAATGATTTTC
 ATGGCATCTGTCTCGGAAAGAACAAATGGAGAATATGCTTAACCAAAGTCATAACCAAT
 AAATGAACCTTGACAGCAGAGCCGTGATTCTAGCCAAGATGACTATTTTCATGCATGTTTT
 GAAGGCCAGGAAAAGGAGTTAGACTTGTGTTGGGAAGGGAACAGGAGCTATCAAGGTGA
 ACTTTTCTAAGAGTAGCCCAATAATAGTGCTCGGGAGGGAGTAATGTGTGCAAGAAATAG

FIGURE 3, page 52 of 61

95067 AGAGAAATGGAAGCAGGGAGATAAATTAGGTGGTTATTGCAAGAGGCCAGGTAAGAAGAG
AAAGTGGTTTAAAGTAGGGTGGTGGCAGAGAAGACGGTTCCAAGCAGAGGGGGACCACG
CTGACAAATAAGCGCGGGCCACTCACGCAAGCCCAACAAGGCAGAGGCAGAAAGGCAAAA
GTGAAGGCCAGAGAAAACCTGGACACCACCTTTCCAGAGCACAGTTCAAAGGCAATGTCCT
CAAAGAAGACACTCCACCTCCTCCCATTTCCTCCCTATTGCCTAAAAATAAGAAGGATA
[C, T]
GCGGCCTATGGCAAACCTTGGGCAGGCACGTGGGAGCTGAGCTCTTGCAAAGGGCAGATA
GTTCTCTGGTGAGAGAGAAAAGGAAGGGCCAGTGAGGAGTGAAGGAAGAGACGAACAGA
GAGCCCGAAAGGCTGAGAACGTTGTCTGGCTTCCTGAAAGGCTTAAGGGGTTAGCTCTGG
AGGGTGAACATAAAGCCCTAGTTATATTAAACACACACGCACACACGCACGCACACACAT
GCGGCACACACACACACATACACAGTTGAAGGAGACCTGCAGTTTCCAAAAACAA

96000 TATTATTGATCTTGATTACTGAGTTTTTAGGTGTACCCTTAAATGTTGCACCTCTGACTT
ACTAGTCTCACCCTGATCCCTGTCTGGATCTATGCCTGTCTGTTCTATATCAGCCTCTT
GCTTTGACCATAAGAATAACTTCAGACCTTTAAGCATAGAGGAAATAGGATTTCTGTCTC
CCTTCCCCACCTTTGTGATAATCTCAGCTTCTGCTTTTAAAGTCTATCTCCCAAGTAGTT
TGCTTACTATGTTCTCCCAAGGTCACAGGTTCTGTGAAACTAGCAGCAGGCTAGATTG
[T, C]
CACATTAGCACAAAGGATCCACTATTCTGCAGCCGAGCTGGGACAAGCACTTAGGCCCCA
CTGACTCCAACCCCTCAATAGCCTGGGACCTACGTTGTCTCCAGGTGGTATAAAAACAAGA
ATTTCCCTTTGACTGGGAGAAAAAGGGAAGAACTCTAAATTTGAAAAACAGGTCATCTCG
AATTTCTACAGGTGGAATTTCTGACAACCCCTTTGGGACCCACAATTCAACACACCCCA
AATGGGGACAGTAGCTAACATGCAACCTGTAGGCTGTTCTGTCTATCCAGTGCACCTGTGC

96877 GGGAAATTAAGGTGGAAGGCAGGGCGTTTTGACTGCATTTGACCCAAGTCCTGAAGAGCCA
GCTCCTCTCTCTTCTCAATTATTAGAAGGTTTTGTTTGGACCCAGTGTTTACGCTGTATA
CAATACAACTTCTCTCTTTCTACTTGGATCAAATTTGTTCTCTCAAATAAGATTCCC
AGCAGTGAGAGAAGACAAGACAGAGATCCAACATCTCTAAAGCCATGAATCAGATAAC
CAGCCACTTGTCTCTTCTAGTGCTGGGAACAGATACACTGTTAAATAAAATGATTTTATA
[G, T]
ATTCTTCTCACTGCCTTTTCCAAGAAGGGGATTTATCAACTTCAGGGCACAGCAATCATT
ATTCCCAGACTACTGGCATGCATATATATATATATTTACTTCTCTTGACTTAGAAAAAG
AGAGAAATTGGAGTTGTGAATATTCTGTCTCCCTCACCCAGCCCCCTTGAAGTGAGTCA
GGACAACTTTGGGGCCCAATGGAGCTGTAAGTAAGTCACTGAGTCACATGCAGAGATGAACC
TTCACAGACCCACTGATATGGAGGTTGAAGATTAAATTTCCCTTTGAGAATAACTGGGTA

97271 ATTTACTTCTCTTGACTTAGAAAAAGAGAGAATTGGAGTTGTGAATATTCCTGTCTCCC
TCACCCAGCCCCCTTGAAGTGAGTCAGGACAACTTGGGGCCCAATGGAGCTGTAAGT
AACTGAGTCACATGCAGAGATGAAACCTTCACAGACCCACTGATATGGAGGTTGAAGATT
AAATTTCCCTTTGAGAATAACTGGGTAACACTCATAAGAGACTACTTTCAAGAAGGCCA
GATCCTCCCTCTAATGTATAGTGCAACGTTCCCTAACCTCAGCCCACTCCGTCATACCC
[A, C]
ACTCACATGAATACACACATAAGCAGTAATATAAAGCACTTCCACCATAGGGCAGCAAA
GAAGGAGGGAAATCTTTATTATGGAAGAGTGGAAGGAAGGAAGGGAAGGGAAGGGAAGCG
AAGGGTAAGAGGAAGAAATTCACAGGTGAGCAGAGGAATGACATGTTTGGGGCATAATGA
AGATAATTGAAGTGACAGATTGTATGGAATAATTTGAAATATCAGGTGGCAGGCCAGG
CATGGTAGCTCATGCCTGTAATCCCAGCACTTTGGGAGGCCAAAGCAGGCGGATCACCTG

97470 ACTGGGTAACACTCATACAGAGACTACTTTCAAGAAGGCCAGATCCTCCCTCTAATGTAT
AGTGCAACGTTCTTAACCTCAGCCCACTCCGTCATACCCCACTCACATGAATACACAC
ATAAGCAGTCAATATAAAGCACTTCCACCATAGGGCAGCAAGGAAGGGAAGGGAAGGGA
TTATGGAAGAGTGGAAGGAAGGAAGGGAAGGGAAGGGAAGGGAAGGGAAGGGAAGGGA
TCTCAGGGTGAGCAGAGGAATGACATGTTTGGGGCATAATGAAGATAATTGAAGTGACAG
[G, T]
TTTGATGAAAAAATTTGAAAATATCAGGTGGCAGGCCAGGCATGGTAGCTCATGCCTGT
AATCCCAGCACTTTGGGAGGCCAAAGCAGGCGGATCACCTGAGGTACAGAGTTTGAGACT
AGCCGGGCCAACATGGCAAAACCCATCTCGACTAAAAATACAAAAATTAGCTGGGTTTA
GTGGCGCATGCCTGTAATCCCAGCTACTCGGGAGGCTGAGGCAGGAGAATCATTTGAGCC
TGGGAGGCAAGGTTGCAAGTGAGTCGAGATCATGCTACTACACTTCAGCCTGGGTGAGAG

97518 CCTCTAATGTATAGTGCAACGTTCTTAACCTCAGCCCACTCCGTCATACCCCACTCAC
ATGAATACACACATAAGCAGTAATATAAAGCACTTCCACCATAGGGCAGCAAGGAAGGA
GGGAAATCTTTATTATGGAAGAGTGGAAGGAAGGAAGGGAAGGGAAGGGAAGGGAAGGGA
AAGAGGAAGAATTCTCAGGGTGAGCAGAGGAATGACATGTTTGGGGCATAATGAAGATAA
TTGAAGTGACAGATTGTATGAAAAAATTTGAAAATATCAGGTGGCAGGCCAGGCATGGT
[G, A]
GCTCATGCCTGTAATCCCAGCACTTTGGGAGGCCAAAGCAGGCGGATCACCTGAGGTAC
GAGTTTGAGACTAGCCGGGCCAACATGGCAAAACCCATCTCGACTAAAAATACAAAAAT
TAGCTGGGTTTAGTGGCGCATGCCTGTAATCCCAGCTACTCGGGAGGCTGAGGCAGGAGA
ATCATTTGAGCCTGGGAGGCCAAGGTTGCAGTGAGTCGAGATCATGCTACTACACTTCAG
CCTGGGTGAGAGAGCTTTCTTTTTTCTCTCACAAAAAAGAAAAGTTTCAGGTTGACAGA

FIGURE 3, page 53 of 61

98476 TGTCCCTTTCCCTCTAGCCACAGGTAACACGCTCTCCAGGCACTGGGAAAGTGGGTAATT
AGGAAAGCAGAGGAGTACCCATGGGCTGTGATGCCAGTTATAAACCCAGACATTTTCAGA
ATTAACAGAATGAGCATCAAGTCTCAATGGGTCTACATCCATAAACATGTCCAGCAGT
CAGCTCTTTACTGTCTAGTAGAGACAAATGTTCTTACACTTTCCCTAGGGGAAGCCACAT
CCTCAGTAGGTTATCTCTGATGAGTCCAGCTAGTCAAGGTATGTAGAAGCTGCATGCAG
[C, T]
AGAGGGCTCAAAGGAGGGTCCAGAATAGATACCAAAGCAAAGGGGAGTCTGTGCACGTT
CTCACAGCACCCTCGAAACACTCTTTTGTTCACAAAATAGATGGTGTAGGGTAGTTCCA
AGAGATCATTTAGCTCAGGTTCTTGCCTCCATAAAATAAATAAGCCTTCCATATTAGTTG
TCTGTTGCTGTGTAGCAAATTGTGAGAAACGTAGAGGCTTAAAGCAATACCCATTTATTA
TCTCGCAAGTTCTGTATCTCAGAAGTCCAGGCAGGCTTGACTGGGTCTCTGTCCAAGTT

98779 AGGGCTCAAAGGAGGGTCCAGAATAGATACCAAAGCAAAGGGGAGTCTGTGCACGTTCT
CACACGCACCCCGAAACACTCTTTTGTTCACAAAATAGATGGTGTAGGGTAGTTCCAAG
AGATCATTTAGCTCAGGTTCTTGCCTCCATAAAATAAATAAGCCTTCCATATTAGTTGTC
TGTTGCTGTGTAGCAAATTGTGAGAAACGTAGAGGCTTAAAGCAATACCCATTTATTA
TCGCAAGTTCTGTATCTCAGAAGTCCAGGCAGGCTTGACTGGGTCTCTGTCCAAGTTCT
[C, T]
GTGAGACTGAAATCAAGGTGTTGGCCAGGCTGGGATCTTATCTGGAGGCTCTGAGGACAT
ATACGCTTCCAACCTTATTTCAGGCCATCAGCAGAATCCCGTCTCTTGTGGCTTGAGGTTG
GAGGTCCCCGTTTCTTGTGCTGCTGTCTCCAGGACCACTCTTTCACCTACAGGCTGC
CTATGTTCTTATTCAACAAGACACCGCTTCTCTTCAAACCAAAGCAGCATGTAGAATCTTT
CTTGTGGCTCGTATCTTCTGGCTTTCCCTTCTCTTTAGCCAGAGAAAGTTCTTTGCTT

99218 CTGGCTGTCTCCAGGGACCACTCTTTCACCTACAGGCTGCCTATGTTCTTATTCACAA
GACACCGTTTCTCTTCAAACCAAAGCAGCATGTAGAATCTTTCTTGTGGCTCGTATCTTT
CTGGCTTTCCCTTCTTCTTTAGCCAGAGAAAGTTCTTTGCTTTTAAAGGTTCTATGCGATT
CAATCAGGCCACCTGGATAATGTCCCTATTTTAAAGGTAAGTGTGATACCGTATAACAT
TTCAGGAGTGATAACAGCACATTTACAGGTTCCAAGGATTTGGGCAGAACATCTTTGGGG
[C, G]
AACATTTTAGAACTCTGCCTCCCACTCACCCATAATCCTTTTAAAAACCAATCTTGA
AGCCTTTTTCCTCAAAGGCTTTTGAATAAGCACATTATACCTAATCTCATCAGACA
CCCACCTTTGAGCAAACACTAGCATGTGGCAAATAGGCTGTAAATCAATCAGAACTATTC
TTTCCACCAACAATCTTCTCAAACACATTGGGAGAATCTGACACTGTCAAGTGGTATACC
AGAGCAGACTCCTACCATCTCACAAGAGCTGACTGTTAAATGTTTAGTAATTGTGGACAT

100538 TGTAACATTTGGTAAGTTAATTTGAAATGTGGTTTCTAGATCTCTCATCATCCTAGTCAC
CCTACTCTGGATGTACTCCAAAGTCCCTCTCAAGATATAGTGTGAGAATTGACCTAATTA
GTCCAGCATTTGACTGAAACGCTAGACTTTGACTCCAGCCCCCATCTTACTGGGCACT
AGCATTTCAAGCGCTTCTCTCTTTCCCTGGGTCTTTAATAGAGTCAAGGCACTTCTCC
AGGGGATCTTTTGGCCATGGACCAGTAGCATCCACACGCTGGGGCTTTGTTAAAAAGG
[C, A]
AGGCTCTCAGGCCCCACCCAGATCTACTGAATCAGAATCCACACATTAACAAGATGCTT
GGGTGATTCATGTGCACATTAAGTTTGAAGAAGCACCCTTTACAGGACGAGATGACACA
CTTATTTTAAAGAGAACGCCAATTAGAGACCCTAAGCCTTCTCATGGAACAGGGGCTTC
CCCTCAGACTTGGGAGAGGGGTGAGGAAATATCAGTGTGGGTGTTGGTGACAGGTG
GCGGTGGGGGTTTCACTCCAGTTCAAAGAGCCAGAACCTGGCAGGGGAAGAGATGGGG

101045 GGAAATATCAGTGTGGGTTGTTGGTGACAGGTGGCGGTGGGGGTTTCACTCCACGTTCA
AAGAGCCAGAAACCTGGCAGGGGAAGAGATGGGGCAGTGACACCCAACCGAAAAATAAA
GGAAACTACAAGAAGAACCCAGCTAAGAGATGTGAGGCTTCTGAAAGCTCCCATGGAAG
GTTTCGAGCTCTTCCACCTGCTCGGTCCAGCTGCCCCAGGTCAAGGAAGCTCTGTGAGTG
TTAGCTGACCCCGAGCAGCAAGGATACATTCAGAAGTGATGAAAGGGAACGCTTCTTGAC
[A, C]
GGGTAAAGAGTCAATTCAGTAGGAATGAGACAGGAAGAGGTACAGAGTCAGAAGCCAGC
CTGTACTCAGAGATTATTTCTGGCATGGGAGGGCCGAAGGTTAGGAGGCCACCTACTCA
CAATACAATACAGAGGCAGATCCACTTATTACCTGCCTGTGCTGCTGGGATTTCACTGTG
GAAATTCGTGCTTCTTCACTGTGGCTGCAGCTTGGGAATGACATCCAGAGCTTACCCAC
CTGCATAAGAAATAAGCTATAGGTGTAATAGGGGGACATAGGCTAAATCCTAGCTCAGC

101232 GCTCCTCCACCTGCTCGGTCCAGCTGCCCCAGGTCAAGGAAGCTCTGTGAGTGTAGCTG
ACCCGGAGCAGCAAGGATACATTCAGAAGTGATGAAAGGGAACGCTTCTTGACAGGGTAA
AGAGTCATTCAGTAGGAATGAGACAGGAAGAGGTACAGAGTCAGAAGCCAGCCTGTAC
TCAGAGATTATTTCTGGCATGGGAGGGCCGAAGGTTAGGAGGCCACCTACTACAATAC
AATACAGAGGCAGATCCACTTATTACCTGCCTGTGCTGCTGGGATTTCACTGTGGAAAT
[C, G]
TGTGCCTCCTCACTGTGGCTGCAGCTTGGGAATGACATCCAGAGCTTACCCACCTGCATA
AGAAATAAGCTATAGGTGTAATAGGGGGACATAGGCTAAATCCTAGCTCAGCTGCTTAA
TAGCTGTGCGACTGAGCAAGTTACTTAACCTCTTTGAGCATCTGTTTCTCATCTTTAAA
ATGGAAGTAATCATAATTGACCAGGCCAGTGGCTCACACCTATAATCCAGCACCTTGG

FIGURE 3, page 54 of 61

AAGGCCGAGGCCAGTGGATTGCTTGAGCCCAAGAGTTTGAGACCAGCATGGTGACACCTC

101266 CAAGGAAGCTCTGTGAGTGTAGCTGACCCGGAGCAGCAAGGATACATTGAGAAGTGTATG
AAAGGGAACGCTTCTTGACAGGGTAAAGAGTCATTGAGTGAAGTGAAGACAGGAAGAGGT
CACAGAGTCAGAAGCCAGCCTGTACTCAGAGATTATTTCTGGCATGGGAGGGCCGAAGG
GTTAGGAGGCCACCTACTCACAATACAATACAGAGGCAGATCCACTTATTACCTGCCTGT
GCTGCTGGGATTTAGTGTGAAATCTGTGCCTCCTACTGTGGCTGCAGCTTGGGAAT
[G, A]
ACATCCAGAGCTTACCCACCTGCATAAGAAATAAGCTATAGGTGTAATAGGGGGACATAG
GCTAAAATCCTAGCTCAGCTGCTTAATAGCTGTGCGACTGAGCAAGTTACTTAACCTCTT
TGAGCATCTGTTTTCTCATCTTTAAATGGAAGTAATCATAATTGACCAGGCCAGTGGC
TCACACCTATAATCCCAGCACCTTGAAGGCCGAGGCCAGTGGATTGCTTGAGCCCAAGA
GTTTGAGACCAGCATGGTGACACCTCGTCTCTAGAAAAATACAAAAATTAGCCAGGCAT

101290 TGACCCGGAGCAGCAAGGATACATTGAGAAGTGTATGAAAGGGAACGCTTCTTGACAGGGT
AAAGAGTCATTGAGTAGGAATGAGACAGGAAGAGGTCACAGAGTCAGAAGCCAGCCTGT
ACTCAGAGATTATTTCTGGCATGGGAGGGCCGAAGGGTTAGGAGGCCACCTACTCACAAT
ACAATACAGAGGCAGATCCACTTATTACCTGCCTGTGCTGCTGGGATTTAGTGTGGAAT
TTCTGTGCCTCCTCACTGTGGCTGCAGCTTGGGAATGACATCCAGAGCTTACCCACCTGC
[A, G]
TAAGAAATAAGCTATAGGTGTAATAGGGGGACATAGGCTAAAATCCTAGCTCAGCTGCTT
AATAGCTGTGCGACTGAGCAAGTTACTTAACCTCTTTGAGCATCTGTTTTCTCATCTTTA
AAATGGAAGTAATCATAATTGACCAGGCCAGTGGCTCACACCTATAATCCCAGCACCTT
GGAAGGCCGAGGCCAGTGGATTGCTTGAGCCCAAGAGTTTGAGACCAGCATGGTGACACC
TCGTCTCTAGAAAAATACAAAAATTAGCCAGGCATGGTGCCAGGTGCCTGTAGTCTTAG

101326 AAAGGGAACGCTTCTTGACAGGGTAAAGAGTCATTGAGTAGGAATGAGACAGGAAGAGGT
CACAGAGTCAGAAGCCAGCCTGTACTCAGAGATTATTTCTGGCATGGGAGGGCCGAAGG
GTTAGGAGGCCACCTACTCACAATACAATACAGAGGCAGATCCACTTATTACCTGCCTGT
GCTGCTGGGATTTAGTGTGGAATTTCTGTGCCTCCTCACTGTGGCTGCAGCTTGGGAAT
GACATCCAGAGCTTACCCACCTGCATAAGAAATAAGCTATAGGTGTAATAGGGGGACATA
[G, A]
GCTAAAATCCTAGCTCAGCTGCTTAATAGCTGTGCGACTGAGCAAGTTACTTAACCTCTT
TGAGCATCTGTTTTCTCATCTTTAAATGGAAGTAATCATAATTGACCAGGCCAGTGGC
TCACACCTATAATCCCAGCACCTTGAAGGCCGAGGCCAGTGGATTGCTTGAGCCCAAGA
GTTTGAGACCAGCATGGTGACACCTCGTCTCTAGAAAAATACAAAAATTAGCCAGGCAT
GGTGCCAGGTGCCTGTAGTCTTAGCTACTCGGTAGGCTGAGGTGGGAAGATTATATGAGC

102342 ACCCTGTCTCAATAAATAAATAAGAAGATGAAACAAGAAAGTTCTTCTTATGGTTCTCA
TGTTGGTGAGCACAATGTAAGCATATATATTATCTTAGAATTCTTCTTCTGTATAAAG
AAGGCTCCTCCAAATGTATTAATCATCTGTTCAACTAATAAATGCTGCTTACTCCCCTT
TCACTCTAAAGGAACCTCAATGGCTAAAGAGAACCCTTCCCCTTTCAGCACCTGAGGAT
CAGAGCCCTGATTTGAATGTCTCGATGCAAAGGACTATTTCAAAGGCCAGCCAGGCAG
[C, A]
CCAGACATGTATTTCTTAATCGTCTCCAGGTTGTTTGATAGAAGATCTCCTGGGAGCAGG
TTTCCGAGCAGCTCAGCCAGGTCGTTCTGGGAACGCTGTGTGCATTGGCACCTCCCTT
GGCAGAAAGCTTGGAGGAAAGGCAGGTGCAGGTCCTGGAGCCTCTGACAGCATTACTGGC
TCTAGGAGTAGCTGTCTCAGGATAATCTGTCCCCATGACCATTAAAGTAAGTGCCTGTGC
GGGAAGAAGAACTGGAATGGGGGGCCCAAAAAATCTGAAAACCTCACTTGAACCACT

104489 GTTCAAGAGCTGGAAGGGATTTTCTAGCCTCCAGGCAAGGTAATACCATAAGTCCCAAC
AGTGATGCCCTCCCTGGGAATGATCTCAATGGGAGAATCCTATACCCTGCCTCCTCCATT
CATTCCTGTCTGTATGGTGGTCTGGCTGGCTAACCTAAGTTACTCTTGCCACTAGTTA
ACGCTGTCTTATTTCTCTGTGTCCCCACCTAAGATGTCAATCAAAACAGCACGAGCCAT
GCTATGTACATGACATGTTGTCTGTCCAGCCAGAGCTTGTGTGTGATGGGGGCACAGA
[C, T]
TAGATTTTGAGAGAAATCTCTGTGTACCACCTTAACATTCCAACCCCTCTAATAGCC
CATTTAGGATTTATCATACTGTTTCATCCAAACCTTTTCATGACCTGATTTCTATTTCCAG
CTTCAACCAACCCCTTGGGTCAACACCTGTACTTATTGAGTTTCCCTAGTTTCTGAATTA
ATGACTGAAGATGATAAGCTTCCCTTACATATGACTCTCAAACCACCAACTGGGATTGT
TGTTACTCTTAGTGATAATGTTGTCTATTTATGAAACTTTAATAGGGAACACAACCCCT

105266 AGGCCAGAGCATCATGGCCTTTCACAAGTTGAAGAGCCACGGGCTTCTACGGTAGCCAG
CCACGCTTTTCCATGACTGGGGTGGGTGTGGCAAGTGATGAGGGTTTGGAGTTCATGTGG
TGGGGTGGCAGGAGCCAGGTGTCTTGGTAAGTGCTGTTGCATTCACTTCAGGAGCAAGG
ACCAGATCTGATTCTGCAGGATCAACAATATGGACACTGCAGGCTCTGTAGACATCCAA
GCTCTAATGGTGACTTGGGGAAGCTCAGGAGGGCAGGGAGTTGTACCCATTGAGATGT
[A, G]
AAGATTCTCTATTTTATAAAAAAGAAAAAGGAGACTGAAGGCCTCAGTCTCTCCCAACA
AAGCCAGGCTGTGGGGTAGCAGAGTCTCAAAGGGTGCAGGCCATGGCCACTGCCAGGG
CTCCTGTCTAGGCCTCCTCACTCCCAACTGAGGGGAGACCCAGTTCACACCCACCCA

FIGURE 3, page 55 of 61

CCTAGCAGTGTCTCACACCCACCGGAGAGGTCTAAACATCTTCCCTGGGAAATGGTCCC
 AAAATGTCCCTGCAGTAAGCAACCATCTGGAGAGGCCAGGTCTACATCTGTTTTAAAG

105338 ATGACTGGGGTGGGTGTGGCAAGTGATGAGGGTTTGGAGTTCATGTGGTGGGGTGGCAGG
 GACCAGGTGTCTTGGTAACTGCTGTTCATTCAGGAGCAAAGGACCAGATCTGAT
 TCTGCAGGATCAACAATATGGACACTGCAGGCTCTGTAGACATCCAAAGCTCTAATGGTG
 ACTTGGGGAAGCTCAGGAGGGCAGGAGGTGTACCCATTTAGAAATGTAAAGATTCTTAT
 TTTATAAAAAAGAAAAAGGAGACTGAAGGCCTCAGTCTCTCCAACAAAGCCAGGCTG
 [T, C]
 GGGGTAGCAGAGTCTCAAAGGGTGCAGGCCCATGGCCACTGCCAGGGCTCCTGCTCAGG
 CCTCCTCACTCCCAACTGAGGGGAGACCCAGTCCACACCCACCCACCTAGCAGTGTCT
 TCACACCCACCGGAGAGGTCTAAACATCTTCCCTGGGAAATGGTCCCAAAATGTCCCTG
 CAGTAAGCAACCATCTGGAGAGGCCAGGTCTACATCTGTTTTAAAGCTCCAATAAATA
 AATAAATGAAGGAAGAAAAAAGAAGAAATGCAGAACAGGGTGAATAAATGGCAT

105570 ATTCCTATTTTATAAAAAAGAAAAAGGAGACTGAAGGCCTCAGTCTCTCCAACAAAG
 CCAGGCTGTGGGTAGCAGAGTCTCAAAGGGTGCAGGCCCATGGCCACTGCCAGGGCTC
 CTGCTCAGGCCTCCTCACTCCCAACTGAGGGGAGACCCAGTCCACACCCACCCACCT
 AGCAGTGTCTCACACCCACCGGAGAGGTCTAAACATCTTCCCTGGGAAATGGTCCCAAA
 ATGTCCCTGCAGTAAGCAACCATCTGGAGAGGCCAGGTCTACATCTGTTTTAAAGCTC
 [C, A]
 AATAAATAAATAATGAAGGAAGAAAAAAGAAGAAATGCAGAACAGGGTGAATAA
 ATTCGATGTATTTTAAATTTTATATTAAACAACTAACACCTTTTAAACATGAAAGCA
 ATATAATTGTGCTAGCCACAAATCATCGTAGGACTGAGAAAGGAATCGTGATTCTGAGA
 GCCCTAGAGTTAATGTGATCCAGCTGGCTCATCCCTGTGACTGCAGAACCTGTTTGGAG
 ATAGTGTGAGTGTCTTTCAGGCCCTCTGTGAATTGCCAGAATGTGTGACATGAGCCAAA

105928 AAAATTGGCATGTATTTTAAATGTTTATATTAAACAACTAACACCTTTTAAACATGAAA
 GCAATATAATTGTGCTAGCCACAAATCATCGTAGGACTGAGAAAGGAATCGTGATTCTG
 AGAGCCCTAGAGTTAATGTGATCCAGCTGGCTCATCCCTGTGACTGCAGAACCTGTTTG
 GAGATAGTGTGATAGCTTTTCAGGCCCTCTGTGAATTGCCAGAATGTGTGACATGAGCC
 AAATTTCCCCCAGCATCCCCGCCGCCACCACCACCCCGACCCAACTCTCCGCCG
 [G, A]
 CTCCCATAGAATAGTCACTGCCATACAGAAAAAGAGAAGTCTACTATTTCTGGCAAGA
 TTTCCACAAACAGTTTGTCCCTTTCTGCTTTTATGAAATAAACCATTTGGATCAACGTC
 AGCTGATTGCAAAAATTTCCCTTGTCTCAAAGCAAGACTGATAAGGAAGCAACATGG
 GAGGACCTTAGTGGCCGAGCCTTTATGTGTATGTTATTTTCAATTGCTCTCATAACTGCCCT
 GGGATGCTGTAAGCATGATTCATCCTGTTTGTATTATCAGTTAAATTATGTATCCAAGATT

106459 TAACTGCCCTGGGATGCTGTAAGCATGATTATCCTGTTTGTATTATCAGTTAAATTATGT
 ATCCAAGATTACACAGCCTATCCAGGATTAGAATCAGAGCCCTCGGCTGTGAAGCTTGA
 GCTCTTTCTTTTCAAGTCTTCAATATGATCATGCCATGAAGCAGCACAAGCCAGGAGG
 AGCCCAAGTGAAGCTGGAGGGGTCCACTGGCAGCCACTCTCCTCCGTGCCCCGTGGTGT
 GGGGCAAACTTGGATCTTTCTGAATCTTTTAACTGTTTCTCTCTTCCCGTTTTGTCT
 [G, C]
 CTGGCTGACTTGTCTACACTCTACTCCTTGTCTTATGATACTTATTTTCCATCCACAGC
 AAAACAATTACATCAAGGTAATTGATGATGAGGCATATGAGAAAAACAAGAATTACTTC
 ATTGAGATGATGGGCCCCCGCATGGTGGATATGAGTTTTCAGAAAGGTGTAGTACCTGT
 CCTCCACACTAACACTAACATTCTTCTCTCTCTCTGTTTCTTCTCTCCAACCCATT
 GTCCTCTCTCTCTTGTCTTCCACCTCTCTGTTCCCTTTCCCTGTCTCTCTCTTGC

107710 CTTCAATGACCCCATACATCCCATGGCTCCAATAGACAAGTCAAGAAGTCCTTTCCCTGA
 ATAGATCATACTGTGGAGCAGGAGCTGCCAGTACTGAGGGCAATGTTCCCTTCCCTTCC
 AAGCTGTCCCTCATGCCCTCCAGTACATGCCTGTTGTACAGAGCACCCCAATCCCATCC
 CACAGCAGAGTTCTGCAGCAGAGAAACAGGCTCACACCTGTAGACAGCCCTGGGGTCC
 CATATCTAGGGCCAACAGAAATATTTCCAAAAAATGCCTCTTGACAATCAATGAGCTTT
 [C, G]
 TCTTTTGTCCGCTGAGCAAGGTATAAAAAAGATGTCAAAAAGTACCCAAAAAGGTAATA
 AAAATGTACAGTCGTGCATCACTTAGCAATAAGGATACATTCTGAGGAAGGTGTCTTAA
 GCAATTTTGTATCGTGGGAAATTTATAGAGTGTACTTTTCAACAACCTAGATGGTGTAGC
 CTACAACACACCTGGACTATGTGGGCCTATTGCTCCTAGGCTACAAACCTGTACAGCATG
 TGTGTGACTGAATATTGCAGGCAACTGTAGCACAATGATTTGTGTATCTAAACACAT

108062 AAGGTAATAAAAAATGTACAGTCGTGCATCACTTAGCAATAAGGATACATTCTGAGGAAGG
 TGTCTTAAGCAATTTTGTATCGTGGGAAATTTATAGAGTGTACTTTTACAAACCTAGA
 TGGTGTAGCCTACAACACACCTGGACTATGTGGGCCTATTGCTCCTAGGCTACAAACCTG
 TACAGCATGTGCTTGTACTGAATATTGCAGGCAACTGTAGCACAATGGTATTTGTGTATC
 TAAACACATCTAGACATAGAAAGGCACAGTAAAAATATCGTAGTATATAGCCTTATGGG
 [G, A]
 CCACATATTGTAGATGTGGTCTGTCTATTGAGCAAAACGTTTTTATGTAGCATGTGACTGTA
 CTTGTAAAGTACACACACCACAAATGCACAGCAAGTCTGTGCCCTACAAGCCCTTTGG

FIGURE 3, page 56 of 61

GTCAGTCTACTACATTATAAATGGCAAAGCCGAGCAGCCACAGAAGGTAGCAGGAACA
TCAGAGGATCTGAAGAGACATTTAGGTAAATGCTCTTTACCCCTTTAGAGCATTTAGTTCT
TAGGCCTCCCCCCTCCCAATCTCCCCCCCCCCCCGCCAAAAAGAAAAAGAAAAAGAAA

108214 GGCCTATTGCTCCTAGGCTACAAACCTGTACAGCATGTGCTTGACTGAATATTGCAGGC
AACTGTAGCACAAATGGTATTTGTGTATCTAAACACATCTAGACATAGAAAAGGCACAGTA
AAAATATCGTAGTATATAGCCTTATGGGACCACCTATTGTAGATGTGGTCTGTCTATTGAGC
AAAACGTTTTTATGTAGCATGTGACTGTACTTGTAAAGTACACACCACAAATGCACAG
CAAGTCCTGTGCCCTACAAGCCCCCTTTGGGTCAGTCTACTACATTATAAATGGCAAAGCC
[G, A]
AGCACGCCACAGAAGGTAGCAGGAACATCAGAGGATCTGAAGAGACATTTAGGTAAATG
CTCTTTACCCCTTTAGAGCATTTAGTTCTTAGGCCCTCCCCCTCCCAATCTCCCCCCCCGCC
CCCCGCCAAAAAGAAAAAGAAAAAGAAAGCAGAAAATTACAATTCTGGCTCACTAGTAGG
ACCTGCTAGCCACCATTTGTGATTCCATGAAGGACCAGAAAGAACCATATAGGAAGAATCA
GGCCACACGGCAACCTCTCCACATGACAAGAGCCAGTCTTTGGAGGGCAGTGAATTTT

108364 CACTATTGTAGATGTGGTCTGTCTATTGAGCAAAACGTTTTTATGTAGCATGTGACTGTAC
TTGTAAAGTACACACACCACAAATGCACAGCAAGTCCTGTGCCCTACAAGCCCCCTTTGGG
TCAGTCTACTACATTATAAATGGCAAAGCCGAGCAGCCACAGAAGGTAGCAGGAACAT
CAGAGGATCTGAAGAGACATTTAGGTAAATGCTCTTTACCCCTTTAGAGCATTTAGTTCTT
AGGCCTCCCCCTCCCAATCTCCCCCCCCCCCCGCCAAAAAGAAAAAGAAAAAGAAAAG
[C, A]
AGAAAATTACAATTCTGGCTCACTAGTAGGACCTGCTAGCCACCATTTGTGATTCCATGAA
GGACCAGAAGAACCATATAGGAAGAATCAGGCCACACGGCAACCTCTCCACATGACAA
AGAGCCAGTCTTTGGAGGGCAGTGAATTTCAAGGAAAGTTTTCTTCCCTGGGTGACTTGT
TTTTAAAAGATGTTATGTTTTGTTGAGATACCCAGAGATGAACAGAAACTTCCATCACCT
TGTGCCCGAGCCATGATAATTCACATTGAGGAAACCAGTTTGGAAACACATCACCCCT

108657 AAGAAAGCAGAAAATTACAATTCTGGCTCACTAGTAGGACCTGCTAGCCACCATTTGTGAT
TCCATGAAGGACCAGAAGAACCATATAGGAAGAATCAGGCCACACGGCAACCTCTCCA
CATGACAAAGAGCCAGTCTTTGGAGGGCAGTGAATTTCAAGGAAAGTTTTCTTCCCTGGG
TGACTTGTTTTTAAAAGATGTTATGTTTTGTTGAGATACCCAGAGATGAACAGAACTTC
CATCACCTTGTGCCCCAGACCATGATAATTCACATTGAGGAAACCAGTTTGGAAACACA
[T, A]
CACCCCTAAGTGATAGAAGCCCAAAGGTGATTTAGAATTTGATGATTACATCATTTTCT
TCACATTTTCCAGAAATGCATCAGCTGTAATAGTAAAGGATTCCTATGTAATATGTG
GTTAATACATATTTATTTTAGTTCCACCCTGAAGCCCTATGAGATAAAGAAATGAGAA
GATCACACAATTTACCTCCCTTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCT
TCT

109746 GCTCCAGGTGACCAACCAATCTACCGACCCAGTCGACACACTCTCTCTCTTTGTTGCCCT
ACAGGAAACCATTAAGGTTAAAATAGTAGATGAGGAGGAATACGAAAGGCAAGAGAATT
TCTTCATTGCCCTTTGGTGAACCGAAATGGATGGAACGTGGAATATCAGGTGTGAGATTCT
TTAAAACAAAACAAACAAAAAAGAAAGAAAATTAACAAACTGAAAACAAACAAAC
AAAAAAGAAAAAGCAGCTATATTTTTGTCTCCCTCCCTTTCTTCCCTTCTCCTCTTCT
[C, T]
TTTTTGACCAATGGATTTTTTTATTTCTTTTCCCTCCCTGTATTCTCGCTCTCACCCCTGTTT
CGGTATCATCTCTGCTTCTTAGCCTTAGCTTATCCAAATTCCTCCTTTACCGCCTTCT
GGGCAGCACTGCGCCTCAACTCCTCATTACCCTAATGAGTTATTTCCCTGTTTTGCTAC
AATTTTCAATTATTTCAATTGCCATGGGCCCTGCACTCTCCCCACCCACCCCTACACT
GTAACCTGTAATGTGAAAATTCCTTGGTGGGTGGGAGGAGAAGAAAAAAGGAATGT

111484 ACAGGCCTTCTCAGTGTGATTGGTCATTTCTCATTGTCTGCTGGGACTCTCCTGCAGAG
CTGACCACTTCTGTGCTGCGCTGGTTTGGACACACCTGATGCTCTAGGGGCGAGAATCC
TCTCCTTCTTCACTGCTGGTTCTCTTCGTCACCCTCAATAAAACGTTGCCCTCAGCCTG
ACTGCCAAAAGTGCTGGAAGAAAGAAATATCTCTGGTTCTATTGTTTCCCATTTGTA
TTCTTGCCCAACTTCCAGTTCTTGCCACCAACAATATTTCTAGAGGTTGCCCTCAGCACCT
[G, T]
CCCTACCTCATTTCCACCTCCCTTGAGCATTTATTCATGTATTCTATAATTGGTTGGAAG
CAGCAGATACCCAAAGGCAATGTAAAGTACCTTCATCAGTTTCCACAGTCCAAGCTACT
TAGATGCAAAACGAAAGCAGCAGATGTACAGCGTACAGGAAGGAAGGCAGTGGTTCCAGAC
AAGAGGAAGAGATTGGAAGTCCATACATGCTTTATTCCACAGTAAAGAGGCTCTCTCT
TTATGCCCTCCCTTAAACCTCTACCAACAGCAGGACAGAGAGTGACCAAGATAAGTCTT

112879 TTGGTCTCCTTTTTTCGACAACCGTGGGCTCATCTTGACAAGCTGCCAGATGCTTCCTA
ATTACTCAGAGTCTATGCTCTTTCCAGCTTGTCCCTGGGGTGTCTGAGCAGGAATAAAT
GACTCTCAGCTGACCCAGGGGATCAATACAGGGGAAAGTTACAGTCCAGCTTCTCTCATG
AGCAGCAGCAGGAAAAACACCTCGAGGTATTGTGTGCTCAGTCAAAGCTGGCCTACCCAGGT
CTTGTGACCCATCTATAACTGCTGAGCAGAAAGTCTTGGATTCTAGGAGACAATGACCA
[A, G]
AGAATGATGGAATTCAGCCAACTGCAGGCTTCTCACTACTCTAGGATGGGCCAGATG

FIGURE 3, page 57 of 61

TTCGGTGGCATGTATGAGTGAAAACCAGGGCATCAGGGACCTTTCTGGAAGAGCTGCCTT
 TGTCTGACCCACCTGTGTTTATGTTGCTGGGATCTCTGATCTCCCTGGAACCTGGG
 GGAAGCTCTTCCACGCAAACTCCCGGAAGGAGCAGAATAAACAAAGCTCTTGCCATCTAT
 CTATCTATCTATCTATCTATCTATCTATCTATCTATCTACCTATCTGCCTATCTATATCT

113245 TGGCATGTATGAGTGAAAACCAGGGCATCAGGGACCTTTCTGGAAGAGCTGCCTTTGTCT
 GACCCACCTGTGTTTATGTTGCTGGGATCTCTGATCTCCCTGGAACCTGGGGGAAG
 CTCTTCCACGCAAACTCCCGGAAGGAGCAGAATAAACAAAGCTCTTGCCATCTATCTATC
 TATCTATCTATCTATCTATCTATCTATCTATCTACCTATCTGCCTATCTATCTATCTA
 TCTCAATGTAGTGAGGAAAGCCATTGATCCATTAACCTTTGGAATTTACATGGGAGATA
 [C, T]
 CTAATAAAGTGAACCTGCCTTGTGTTATGTATCATGCAGACTCTGGATCCACATATATCTCA
 GTGGCTGTGAATATAGGATGATTGATCAGGCTGAGTTGCATTCTACAGATTCTTAG
 GAAAAAATTGATTACAGACATGTCCCCCTGGTTCCCCCACAACACACTCCTTCCT
 CAGCAATCTCTACGTACCAACTACACGTTGAATATGTGGCAAGCTCTTCCAGACCT
 TTATCTGAGAGCCAAGGAGTGAGGGGCTGTACTAAGATATCATAGAAATGAAATGTGGT

113265 CAGGGCATCAGGGACCTTTCTGGAAGAGCTGCCTTTGTCTGACCCACCTGTGTTTATTA
 TGTGCTGGGATCTCTGATCTCCCTGGAACCTGGGGGAAGCTCTTCCACGCAAACTCCCG
 GAAGGAGCAGAATAAACAAAGCTCTTGCCATCTATCTATCTATCTATCTATCTATCTATC
 TATCTATCTATCTATCTATCTATCTATCTATCTATCTATCTATCTATCTATCTATCTA
 CCATTGATCCATTAACCTTTGGAATTTCTACATGGGAGATACCTAAAAAGTGAACCTGCCT
 [T, C]
 GTTATGTATCATGCAGACTCTGGATCCACATATATCTCAGTGGCTGTGAATATAGGATG
 ATTGATCAGGCTGAGTTGCATTCTTACAGATTCTTAGGAAAAAATTGATTCACAGA
 CATGTCCCCCTGGTTCCCCCACAACACACTCCTTCCTCAGCAATCTCTATCAGTCAC
 CAACTACAGCTTGAATATGTGGCAAGCTCTTCCAGACCTTTATCTGAGAGCCAAGGAGT
 GAGGGGCTGTACTAAGATATCATAGAAATGAAATGTGGTGTGTACAAGTTTCTTAAT

113497 GAGGAAAGCCATTGATCCATTAACCTTTGGAATTTCTACATGGGAGATACCTAAAAAGTG
 AACTGCCTTGTGTTATGTATCATGCAGACTCTGGATCCACATATATCTCAGTGGCTGTGAA
 TATAGGATGATTGATCAGGCTGAGTTGCATTCTTACAGATTCTTAGGAAAAAATTG
 ATTCACAGACATGTCCCCCTGGTTCCCCCACAACACACTCCTTCCTCAGCAATCTCT
 ATCAGTCACCAACTACACGTTGAATATGTGGCAAGCTCTTCCAGACCTTTATCTGAGAG
 [C, G]
 CAAGGAGTGAGGGGCTGTACTAAGATATCATAGAAATGAAATGTGGTGTGTACAAGTT
 TCCTTAATTCTTAGATCTTAACTCTAAGAGGGTTACAGATAAGTACAAATTCAGGGCT
 AGAGACAACCTGTATTGGGTGTGTCTTAACTCAGTTTCCCAATCCACATAGGGACCTTG
 CATTTGTCACTCTCATCTATGTATAGCTGTTGGTATGACAGTTTCTCTGTGCCAATA
 CCTGAACCTGTACTTAGCCTGTCTTTCTGAAACAGAAAATCACCACAGAGATCTA

114486 CCCCATGGTCATTTTTGCCACTCATAAGTTAGCTACTCTGGCAGGGTTGCAACTTACACA
 GTTTTCATGATAACTGGATTCTCACTCCTTTTTTACAGAAATGGATGTGATAACCTGGTA
 TCCTACACAGTCATGAGTGACCAACCTACCCATTGGTTCCCATCCTCATTCTCCTCATT
 CCTAGCCCTAGGGTAGCCGGGAAAGCATAGGAGCAAAATGCCCTTACCAGGGCCCTGGTGC
 TCAGCAGCCTCTCCGGCTGCTCACACCTCTGCTGCTGCTGTGCTGCTGCCAAAGCT
 [G, T]
 CTTTTTGGCTATGGCTGCTGAGCTCTCACCTACTAAGCTCTCTGCTTTCCTTATGCTGCC
 AGCAACCAACAAACCTGGTGATCTTCAAGATGGGACATTATGCTCTTTTCTTTTCTT
 TCTTCCATTTTTTCTGGTATCCATTGCAAAACAGCGCTCCTGTTATCTCCAGTAAGAGGT
 GTCTTGTCCCCCTCTTTTCTTCCACTTCTTCCAGTGCCATTATTTGGTTTAAAGACCA
 TGTCCTTTGATTTATTGAATAAGAACTGCAGGCTCAAGTTAAGCTGACAATTTCTCCAA

114686 GAAAGCATAGGAGCAAAATGCCCTTACCAGGCCCTGGTGCTCAGCAGCCTCTCCGGCTGC
 TCACACCTCTTGTGCTGCTCTGTGCATGCTCCAAAGGCTGCTTTTTGCGTATGGCTGCT
 GAGCTCTACCTACTAAGCTCTCTGCTTTCTTATGCTGCCAGCAACCAACCAACCTGGT
 GATACTTTCAAGATGGGACATTAATGCTCTTTCTTTCTTTCTTCTTCCATTTTCTGGTAT
 CCATTTGCAAAAGCGCTCCTGTTATCTCCAGGTAAGAGGTGCTTTTCCCTCTTTTCT
 [T, C]
 TTCCACTTCTTGCCAGTGCCATTATTTGGTTTAAAGCAATGTCCTTTGATTATTGAAT
 AAGAACTGCAGGCTCAAGTTAACCTGACAATTTCTCCAAGGACTGGGAGATTTATTTTC
 CCACATGAAGCAATTATGAGAAAGCAATTGTGAGGAAGGCAATTCCTTGAGCATCACTTC
 TGTCTGGGACGTGGGTTAAGGCATAGCTGATCCTCTCTGGGACCAGGAAGAGAAATTAA
 GCTTAACAAGGAGATGGTGGGTCATAGACTTCTCCTGAGTCTTAATTCATCTGCCATCTC

114817 TACTAAGCTCTCTGCTTTCTTATGCTGCCAGCAACCAACCAACCTGGTGATCTTTCAA
 GATGGGACATTATGCTCTTTCTTTCTTTCTTCTTCCATTTTCTGGTATCCATTTGCAAA
 CAGCGCTCCTGTTATCTCCAGGTAAGAGGTGCTTGTCCCCCTCTTTTCTTCTTCCACTTCT
 TGCCAGTGCCATTATTTGGTTTAAAGCAATGTCCTTTGATTATTGAATAAGAACTGCA
 GGCTCAAGTTAAGCTGACAATTTCTCCAAGGACTGGGAGATTTATTTTCCACATGAAG
 [C, A]

FIGURE 3, page 58 of 61

AATTATGAGAAAGCAATTGTGAGGAAGGCAATTCCTTGAGCATCACTTCTGTCTGGGGAC
GTGGGTAAAGGCATAGCTGATCCTCTCTGGGACCAGGAAGAGAAATTAAGCTTAACAAGG
AGATGGTGGGTATAGACTTCTCCTGAGTCTTAATTCATCTGCCATCTCATGTTGTGGGG
GAAGAGACAGTGAGATTGAGAGCTGGAATCTCCTAATAAATTGTGACAGGATTTGAAAA
AAAAATACTTTAAATCCCAAGGGATCCAGGAAATAACCAACCTGTTGTGAGAATAGGAAA

115600 AGAGAATTTATTTTGAAGAGATTCTCATGCAGAATCTAGGTGCTATAGAGGACGTACACC
TACTTTGAGAGTATGCTTGCATGAGTGGAAACCAATCATAAACACATTCAACTTCATGA
GCAGATATGAAAGCATTTTCAGCATATCTAGCAATACTATAACTCTTTGTGCAAGCAGAG
TGGCCTACACAAGACAGTTTCAATATATTTTAAAGAACGTCTTACATTTTCATCAGTCCT
TTGAACACAGAAAAAATGTTAAGGCCACTTAAGAGGCAAAACATCTTACAGAGTTCATT
[G,T]
ATATTTCAAAGTCACCTACAGGCTACATCTTGGGTTTCAGGAAGGGGCGGTGTACATAGTAA
GGACATACGCCTTCTGGGAGCCTTAAACAAACAAAAAATGTAGGTAACCTCCTACATTT
TTCTTTTGTGGAAAAACACAGTTTACTCCAGCTTCCTTGGCTTTTGTCTCTTTTATATA
CCAACAAAATAAGGGCTATCCTCAACCCCTGTGTTCTTCACTTCTTCTCCAGGGTATTGAT
TTCATAACATTGGGTTTTCTTCTTACTTCACTCATCTCTTGCCTGTGAAGGTATGTA

115668 GAGTATGCTTGCATGAGTGGAAACCAATCATAAACACATTCAACTTCATGAGCAGATAT
GAAAGCATTTTCAGCATATCTAGCAATACTATAACTCTTTGTGCAAGCAGAGTGGCCTAC
ACAAGACAGTTTCAATATATTTTAAAGAACGTCTTACATTTTCATCAGTCCTTTGAACAC
AGAAAAAATGTTAAGGCCACTTAAGAGGCAAAACATCTTACAGAGTTCATTGATATTCA
AAGTCACCTACAGGCTACATCTTGGGTTTCAGGAAGGGGCGGTGTACATAGTAAGGACATA
[A,C]
GCCTTCTGGGAGCCTTAAACAAACAAAAAATGTAGGTAACCTCCTACATTTTCTTTTG
TGGAAAAACACAGTTTACTCCAGCTTCCTTGGCTTTTGTCTCTTTTATACCAACAAA
ATAAGGGCTATCCTCAACCCCTGTGTTCTTCACTTCTTCTCCAGGGTATTGATTTTCATAAC
ATTGGGTTTTTCTTCTACTTCACTCATCTCTTGCCTGTGAAGGTATGTAAGGCTTCT
TTGTTCCAACCTTTCTCTCACCCTCCCCCTCACATAAATGCATAACAAAGATTGTGA

115745 ATCTAGCAATACTATAACTCTTTGTGCAAGCAGAGTGGCCTACACAAGACAGTTTCAATA
TATTTTAAAGAACGTCTTACATTTTCATCAGTCCTTTGAACACAGAAAAAATGTTAAGG
CCACTTAAGAGGCAAAACATCTTACAGAGTTCATTGATATTCAAAGTCACCTACAGGCTA
CATCTTGGGTTTCAGGAAGGGGCGGTGTACATAGTAAGGACATACGCCTTCTGGGAGCCTT
AAACAAACAAAAAATGTAAGGTAACCTCCTACATTTTCTTTTGTGGAAAAACACAGTT
[A,G]
CTCCAGCTTCCTTGGGCTTTTGTCTCTTTTATACCAACAAAAAAGGGCTATCCTCAA
CCCTCTGTTCTTCACTTCTTCTCCAGGGTATTGATTTCAACATTGGGTTTTCTTCTC
TACTTCACTCATCTCTTGCCTGTGAAGGTATGTAAGGCTTCTTGTTCCAACTCTTTCC
TCCACCCGCCCTCACATAAATGCATAACAAAGATTGTGATTTAATTTAAGTTCTT
TCTACTTTTAAACATATTTGCAACATCAATAGAAGCTAAAATGGGAAAAGGAAATGTTT

117230 AATAATACTGTGCTGCTAAGATAGGCATTGTGATATGGTGCTTAAACCTGCAAGTAAAG
GAAAGAGTATGGAATCTGTGTGCTTTTCTAAGGGCTTTTCCCAGAGTAGCTTGCAG
TCTGGCTTCTAGGGTTGCTGGCCTATAGCCGAACCCTAGATTACCCAGATTTACCTTC
AGAAATTAACATAACAGAGACTCAAATTCATAGACTAAATGAAGTCAGGCTGCTAGAGGA
TGTCTGCTGACTTGGACATATGCAGAAAGACATGGATCCTTGAGAAAACATTGTTTCCAA
[A,C]
AGTGGCCACCAGCACTAGAGGAAGGACAGCACCAGGACAGCTCCCAGACATTTTAGGAT
TGCCCTTCTGTGTTTGGTGCCGGAACACTGAGCAAAACAGCGAACTCAGGAAGTCTCCACA
CACTCTCATACCATCTTCATGCAGTCCAACTAAGAAAATTTTACATAAAATATAAGGCT
GTCTGCTTGGTAATTTAAACCCTTGGCTTATAGTCTTTTCAGTGAATTTCTTTCCTTGCA
AACTCGAGAGTTGGAGTCTCAGACTGCCCTTGCTTCACCAATTTCCCAGCTAGAGACAA

118908 CCCATTTGTAACATGAAACAAATAGTGCTGACCATTGTATGCTAGGAATATTGTTAGGA
AACATAATATAGAATGTGAAATAAGTGGACTAGAAAGTCCTGAGATGTATTATCATTATT
GTTTAACTGTGTTTTTAAAGCAAAAATATTAAACTCACTACTACAGGGCAGATATATT
AACATCATATTATTATTATTATTATTGTATTATTCTAAATAGCCAATTTCAAAGTCACAA
CCAGGCCAGGCAGTGAGGGACTCAGCCTGTAATCTCAGCACTTTGAGAGGCCGAGATGG
[A,G]
AGGGTCACTTATACCTAGGAATTTGAGACCAGCCTGGGCAACATAGGGAGACTCCATCTC
TATAAAAAATAAAACAAAATAAAAAATCAGCTCAGTGTGGTTGTACATGCCTGTGGTCCCA
GCTACTCAGGAGGCTGAGGTGGGAGGATGGCTTGAGCCAGGAGGTTGAGGTGCAATGA
GCCATGATTGCACCACTGCATCCAGCCTGGGTGACAAAGTGAGACCCTGTCTCAAACAA
AACAAAACAAAAGATTACAACCAAAAACAAAGGGAAATAGAAGGATTGCCCTCAAAGAG

120430 CCCAAGGCCCCAGAGCCAGAGCAAAAAGACAGCCAGGAAGAGAGGTTTGCTGCTGCTGC
TGCTGCTGCTACCCACTTTTCTCATCACTGCTTAGATCTTTCTAGCTCCCCCTCTGA
TGACCTGACTGTGCCCCCTCAAGACAATAAACGGAATGTAGGCCACATCATCTACCCGTGCT
CCTTTTACAAAGAGGGGACTGAGGTTTCAGAAATAAGAGATGATTTACCCAGCTTACAG
ATTTTCTTCATGGCAAAGCTGGAATGAGAACCAAGTGTCTGACTCCTGTTCTTTCAA

[C, A]
 CCCAGCTTCTACCGGTTATGCCAAAACATGACAGAAGTTGCCGTTGGCAAGGCACAGGCA
 TGCCCTCAGCATACCCCTCCCCTCCAGGGCTGCTGAGTGGGCAACTCTGCCACATTTCCTG
 GCAAGGACAATCAAGGCCCATCCTGCTTTTTCCCATGAGATGTTTGGAGGAGGGCACTGG
 CTCTGCAGTATATTCTCGTGATCTGGAATGACAGCCATCCCTCAGGGGACAGATAATGAC
 CAGAACCACAATGGTTATTGCAGCAGTCAGGTCAGAAAATTGAGAGGAGCCCTGCTGGC

120830 CAACTCTGCCCACATTTCTGGCAAGGACAATCAAGGCCCATCCTGCTTTTTCCCATGAG
 ATGTTTGGAGGAGGGCACTGGCTCTGCAGTATATTCTCGTGATCTGGAATGACAGCCATC
 CCTCAGGGGACAGATAATGACCAGAACCACAATGGTTATTGCAGCAGTCAGGTCAGAAAA
 TTTGAGAGGAGCCCTGCTGGCATCCAGTGAAGAGTGGCCACACCGAACTGATTTCACTTC
 TCTCCTTAGACAACAAAATGCAGCCTGTGCATTCTCTTTCTTTTTTTTTTAATTATAC
 [A, T]
 TTAAGTTCTGGGGTACATGTGCAGAACATAGAGTTTTGTTACATAGGTATACACGTGCCA
 TGGCGGTTTGGCTGCACCCCATCAACCCGTCATCTACATTAGGTATTCTCCTAATGCTATC
 CCTCCCCTATCCCTCACCCCTGACAGGCTCCAGTGTGTGATGTTCTCTCCTGTGTCCA
 TGTGTTCTCATTGTTCAACTCCCACTTATGAGTGAGAACATGCAGTGTGTTGGTTTTCTGT
 TCTTGTGTTAGTTTGGTGAATGATGGTTTGCATCCTCTTCTTCTGCTCCACTGTC

121926 TTGGTCTCAAAGATTTCAGTCACAGCTGTTGTTTTCTGGGCATTTGGCACCTCTGTCCAG
 GTGAGAGTGAGAGGTGCTTGAATTTGCAAGAGGATTTCCTGGTTCAAATGACCCCTG
 GACTCCATCTCATTATCTTCCACACCATCTCAGATCTGAACCTAACAGAGCCTCTGCCCT
 TAAAGTGCACAAAAGTCAATCAAAGAGATGAATAATGACATTAGTAATGACAGCTAATAT
 TTCTTGAGCACTTTCAATGTGACAGACACCATGTGTGTTAGCAATTTACACATTTACAT
 [T, C]
 TTCCCCCTGTAATGTTTCCCAAAGCCCTATTAATAGGGTAAGTTATTATCCCCACTTCA
 CAGACAAAGAAACTGAGGCCCAACAGAGGTTAAGCTACATGCCCAAGTAAGTGGTCCAATT
 TCTTAACTCCACATTATGTGAGTAGACCACAAACAGTGAATTTAAAGAATGTAGATAT
 TGTTCTCCTTCTATTACCTCTGGCGATCTCTGAGAGGTTAAAGATTAGCCAGCTCAAAG
 ATATCAAAGGAGAAATGCCACATACATTCTTGGCCTCCTCTACTTGAAGGACACTGTG

122102 CCCTTAAAGTGACAAAAGTCAATCAAAGAGATGAATAATGACATTAGTAATGACAGCTA
 ATATTTCTTGAGCACTTTCAATGTGACAGACACCATGTGTGTTACAGCAATTTACACATTT
 ACATTTTCCCCCTGTAATGTTTCCCAAAGCCCTATTAATAGGGTAAGTTATTATCCCCA
 CTTACAGACAAAAGAACTGAGGCCCAACAGAGGTTAAGCTACATGCCCAAGTAAGTGGTC
 CAATTTCTTAACTCCACATTATGTGAGTAGACCACAAACAGTGAATTTAAAGAATGTA
 [G, C]
 ATATTGTTCTCCTTCTATTACCTCTGGCGATCTCTGAGAGGTTAAAGATTAGCCAGCTC
 AAAGATATCAAAGGAAATGCCCCACATACATTCTTGGCCTCCTCTACTTGAAGGACAC
 TGTGAGTACAAAGTATCTCCTAGCAGGACAGCCAAAGGAAGTTCCACAGCTTTTATCTTT
 TTATAGGATGAATTACATCTCTTCTTTTCTTAGGAACACTCAGAGACAAACAGAAAG
 GAGCGGACATTCTTTACTCATTTGAACAAATATTTACTGAGCACCTATTATGCCTGTTAC

122950 GGGGCTCTGAACTCTGAACTTCTGCCAGGGAGCTGGCATCCAGTTGCCCCAGAAAGAA
 ACAGAGCACATCCTCCTGCAGGGAAGTTAGGCTGAATCTCATCAGACAGGACTTTTCTGG
 CTGGGCCAAGGGAATCTTTCCTGTACCAAGCAAAACATATCCTTCAAGAGAGTAGCTGAA
 TTCACATCAAAATTCTAGGAAAACCTCTTTTCCAAAACCCAGCGCAGGCGACGGGTATTAT
 TTGTCCATTAGTGATGCAAGAGATTAGCTATCGTGAAATGCATCAGAAGGTTGAAAT
 [T, C]
 AGATGGATGATCCCAGGAAGGCCTGTGGATGAGATGCCCTGTGATCTCTGTTCTCCAAGC
 CTTGGGGGACCTGGAGCTATCAGAGGGGAGGGAGGAAATATGGGGGAAAGCATAGAGGTGG
 GAAGAAATATCAGAGGATCAGAAGCAAAAACAACAATAACAACAGAAACAAAAACAAC
 AAACAACAAAAAACAAGGCCATAGGCCAAGAAAGGGTAAGAGGTTTTCTCTGGGAGATC
 TAAAAAAATGGCAATAATGAGGTAAGCCAGGCAGATACCTTTGGGCATCTCCAAGTCTT

123366 GGTGGGAAGAAATATCAGAGGATCAGAAGCAAAAACAACAATAACAACAGAAACAAAA
 CAAACAACAAACAAAAAACAAGGCCATAGGCCAAGAAAGGTAAGAGGTTTTCTCTGGG
 AGATCTAAAAAAATGGCAATAATGAGGTAAGCCAGGCAGATACCTTTGGGCATCTCCAA
 GTCCTTGCAATTGGCCAAGACAACAGCTAACAACATTTGAGGCTTAAAGAAGGTTACCCT
 GTGATCCACTCATCTGATTTAGTGCTTTGGCTGAAGCTCTTTGGATATAGTTGAAGGTA
 [C, T]
 GGAAAGGGTCCTTACATGAGGACTTTAGGGTCAAGTCTCTTGCTAACATCCTATGTGACC
 TTGGGTAAATTTTACCCTTATTTTCTTACCTGTAAAATAAAAGAAATTGGGCTAGAT
 GTCTCTGACAGTCCTCCCTGTATCTACAATCTGTGCCAAGATCTAAAGTCAAACACCCCTG
 CAAGGCCCTGTGATACATATATAACCACAAAGACAGAGCCCGTCTTCTTGTGAGTCCAC
 AGTTACCCCTGCATGTCCCCATCATGGTTCCCCAACATGTCTCTGTCCCCAAATCCAG

124947 GGCCCTGGCAATTAAGTAAAGGGCAAGTCTTAATCAATCAAACAATGGAGGAATCACC
 GACTTTACACAGTATTTAATTGAATACAAACAAGCAACAGCAACAAATCCACCTCCACCC
 CATCTCCCCCTCATATCCCTGACCCAAAGCAAAGGTCAGAGCCTTTGCGCTCCTTCTATT
 CCATCTTTTGATTATTCCTTTGCCTCTCATTCTTTGGAAGCAGGGTTTCTCCTCTCTGC

FIGURE 3, page 60 of 61

CCAATTCCATATGTCCCTATTATCTCACTCAGCTGACAAGACGTGAAAATGAGTCACATT
[C, T]
ATGTGGCTGGGGTGGGGTCTTTTTTCATTGTAATCATTATTGTGGTTGCTTTTCGTTTGTG
CCGTTAGGTTTTGCTTATTATTTGTTTTGCTTTTTTTTCTGAAGTGAGTGAAAAAGGT
GCCCAAAGGAATTCAGGTCGAGCCAACAGAGAGAAACATGAATTTTAGACACATGC
TCTCCTGCCACCTCTTGGCTCCATCAAGATCCAGTTCCTCATCTCACTGTTTTCTCTGAG
TTCTTGGGAGGAGTGATGGTGTGGGGTAGAAATAAGCTCACTCACCCACGCAGGGTACT

125010 TTTACACAGTATTTAATTGAATACAAACAAGCAACAGCAACAAATCCACCTCCACCCCAT
CTCCCCCTCATATCCCTGACCCAAAGCAAAGGTGAGAGCCTTTCGCTCCTTCTATTCCA
TCTTTTGATTATTCCTTGCCTCTCATTCTTTTGAAGCAGGGTTTCTCCTCTCTGCCCA
ATTCCATATGTCCCTATTATCTCACTCAGCTGACAAGACGTGAAAATGAGTCACATTCTAT
GTGGCTGGGGTGGGGTCTTTTTTCATTGTAATCATTATTGTGGTTGCTTTTCGTTTGGC
[A, G]
TTAGGTTTTGCTTATTATTTTGTGTTTTTCTGAGTGAGTGAAAAAGGTGCC
ACAAAGGAATTCAGGTCGAGCCAACAGAGAGAAACATGAATTTTAGACACATGCTCT
CCTGCCACCTCTTGGCTCCATCAAGATCCAGTTCCTCATCTCACTGTTTTCTCTGAGTTC
TTGGGAGGAGTGATGGTGTGGGGTAGAAATAAGCTCACTCACCCACGCAGGGTACTAAA
GATCTTACAGGAGCTTCAACTGGAGCAGGAGGAGCTTTTTATGCTTATGTTGAATCAAGT

126043 AAAGCATTTTACAAGATAGGAATTCCTCATTTCTCCATGTTCTGCTTGTTC
TTAACTTCATGAAGCTATTTTCCAGCCTATGGGGTAGTTCTTGCTCCAGTAAGAGGAA
TCTTAGTTGTCTATAATCCCTTGGAGCCTGGGTTTTTGGAGAAAGAGATCTCCGTGCCCTA
CAGACCTTTTCTCAACGAATGTGGGAAGGACCTGGCTTTAAACACGCACACAAACACAC
AAATAAACAGACATAAGATGTCATCAGAACTGCCACGGATCTTTAGGCTTTCTGCAT
[T, C]
GACATAAATACATTTTCTAAGGGGGGGGGGAAGAAATTAACAAACACCTGTTAATTTTA
AACACATTTTTTAAAGAAAAAATAATTAAAAAGAAACAGTGCTCATGTCATAAGCTATG
TTGACAGTTGCCAGTGGAAATGTTGGGTTGGTTCAAAAAAATAAAAGCTATACTATA
TCTCTCTACATACAGCTTGCTTCTACCTGTGTTTCTTCAGTGAAAGGTCCAGGGGGCCAC
TGTGGGCTTCTTGTGAGGAGACGTGACTCAGGTGAAGGTGTCACCTCCTCTCACACTCAG

126064 AACTGGAATTCCTCATTTCTCCATGTTCTGCTTGTTCCTTAACTTCATGAAGCTATTT
TTCCAGCCTATGGGGTAGTTCTTGCTCCAGTAAGAGGAATCTTAGTTGTCATAATCCCTT
GGAGCCTGGGTTTTTGGAGAAAGAGATCTCCGTGCCCTACAGACCTTTTCTCAACGAATG
TGGGAAGGACCTGGCTTTAAACACGCACACAAACACAAATAAACAGACATAAGATGT
CATCAGAACTGCCACGGATCTTTAGGCTTTCTGCATTGACATAAATACATTTTCTAA
[-, G]
GGGGGGGGGAAGAAATTAACAAACACCTGTTAATTTTAAACACATTTTTTAAGAAAAAA
ATAATTAACAAAGAACAGTGCTCATGTCATAAGCTATGTTGACAGTTGCCAGTGGAAAT
GTTGGGTTGGTTCAAAAAAATAAAAGCTATACTATATCTCTCTACATACAGCTTGCT
TCTACCTGTGTTTCTTCAGTGAAAGGTCCAGGGGGCCACTGTGGGCTTCTTGTGAGGAGA
CGTGACTCAGGTGAAGGTGTCACCTCCTCTCACACTCAGGTGCCAATGTGTGAGACCCAG

126283 AAATAAACAGACATAAGATGTCATCAGAACTGCCACGGATCTTTAGGCTTTCTGCAT
TGACATAAATACATTTTCTAAGGGGGGGGGGAAGAAATTAACAAACACCTGTTAATTTT
AAACACATTTTTTAAAGAAAAAATAATTAAAAAGAAACAGTGCTCATGTCATAAGCTAT
GTTGACAGTTGCCAGTGGAAATGTTGGGTTGGTTCAAAAAAATAAAAGCTATACTAT
ATCTCTCTACATACAGCTTGCTTCTACCTGTGTTTCTTCAGTGAAAGGTCCAGGGGGCCA
[C, G]
TGTGGGCTTCTTGTGAGGAGACGTGACTCAGGTGAAGGTGTCACCTCCTCTCACACTCAG
GTGCCAATGTGTGAGACCCAGTATATTCTAAGCAAAATACTTCAGGAAATGCCACTTG
TCAAAACCTGGACTTTGCGAAGTTGGAAGATGTAAGTAGTAGTAAAGCTGTGGTAATTA
TGGAGGAAGGAGGTTTCTGTATCAGAAAGGCATTGGCCGTGACAGACTC

Chromosome map:
Chromosome 14